



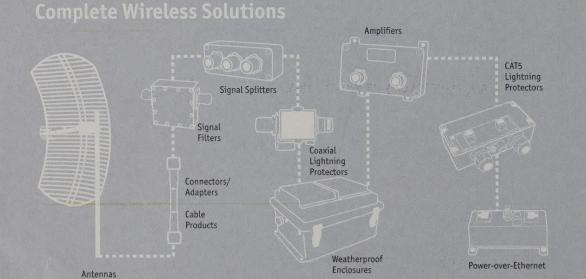
"HyperLink antennas and cables were essential components in the recent successful deployment of a WiFi network in a new residential subdivision. The wealth of detailed product descriptions and technical white papers on their web site was a huge help in choosing suitable hardware. The competitive pricing of HyperLink products didn't hurt either!" – Richard W.

As you can see, it takes more than great products to help our customers succeed. Look inside this catalog for valuable Tech Tips and tutorials. Or, go online. Our Website is chock full of free tips, tutorials, product wizards, product comparisons, installation guides, and glossaries.

Call 877-485-8060 or visit us at www.hyperlinktech.com today and discover why thousands of customers worldwide have made HyperLink their One Stop Wireless Resource.

Your HyperLink Team





HyperLink provides everything you need from antennas to surge protectors. When implementing state of the art wireless communications systems, HyperLink has it all.

# We've Got What You're Looking For...

























It's Easy to Order! Use the Order Form Inside. See Our New Products on Pages 42-43!

You can count on HyperLink for wireless expertise.
Our product specialists are committed to helping you choose the best equipment for the job.

Need a custom order? No problem. HyperLink can turn most custom orders around in 24 hours. Call or visit our website today and meet your HyperLink Team!

Mark Jaworski Sales Manager



# 900 MHz, 2.4 GHz, 5.4 GHz and 5.8 GHz Grid Antennas

HyperGain® high performance reflector grid Wi-Fi antennas are available in gain ranges of 15 dBi to 30 dBi and are ideally suited for long-range highly directional applications. These applications include point to point systems, point to multi-point systems and wireless bridges in the 2.4 GHz ISM band as well as IEEE 802.11b/g/n wireless LAN systems. HyperLink's grid antennas can be installed for either vertical or horizontal polarization.



Mounting: The HG2430G antenna is supplied with a 60 degree tilt and swivel mast mount kit. This allows installation at various degrees of incline for easy alignment.

- Wide range of frequencies
- Extensive selection of gain choices
- · Long-range directional applications
- Point to point systems
- · Point to multi-point systems
- · RoHS compliant

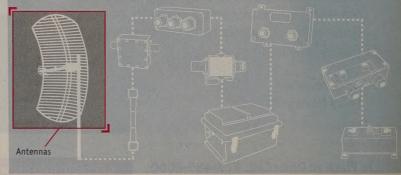


For a complete listing of HyperLink antennas and connector options visit www.hyperlinktech.com

GRID

	Item	Code		Price
NEW!	HG915G-NF	A	900 MHz GRID ANTENNAS 15dBi, 30in Pigtail with NF Connector	\$70.99
NEW!	HG915G-NF-5PK	A	15dBi, 30in Pigtail with NF Connector, 5-Pack	\$329.99
	HG918G-NF-2	В	18dBi, 18in Pigtail with NF Connector	\$327.99
		-	2.4 GHz GRID ANTENNAS	-
	HG2415G-NF	A	15dBi, 12in Pigtail with NF Connector	\$34.99
	HG2415G-NF-5PK	A	15dBi, 12in Pigtail with NF Connector, 5-Pack	\$159.99
	HG2415G-NM	A	15dBi, 12in Pigtail with NM Connector	\$49.99
	HG2419G-NF	A	19dBi, 12in Pigtail with NF Connector	\$40.99
	HG2419G-NF-5PK	A	19dBi, 12in Pigtail with NF Connector, 5-Pack	\$197.99
	HG2424G-NF	A	24dBi, 12in Pigtail with NF Connector	\$54.99
	HG2424G-NF-5PK	A	24dBi, 12in Pigtail with NF Connector, 5-Pack	\$249.99
	HG2424G-NM	A	24dBi, 12in Pigtail with NM Connector	\$59.99
	HG2424G-NM-5PK	A	24dBi, 12in Pigtail with NM Connector, 5-Pack	\$259.99
NEW!	HG2427G	A	27dBi, Integral NF Connector	\$249.99
	HG2430G	В	30dBi, 18in Pigtail with NF Connector	\$429.99
	HG2430G-NM	В	30dBi, 18in Pigtail with NM Connector	\$479.99
	HG5421G	A	5.4 GHZ GRID ANTENNAS  21dBi, Integral NF Connector	\$49.99
	HG5421G-5PK	A	21dBi, Integral NF Connector, 5-Pack	\$239.99
	HG5426G	A	26dBi, Integral NF Connector	\$53.99
		9		
	HG5426G-5PK	A	26dBi, Integral NF Connector, 5-Pack	\$259.99
	HG5822G	A	22dBi, Integral NF Connector	\$49.99
	HG5822G-5PK	A	22dBi, Integral NF Connector, 5-Pack	\$239.99
	HG5827G	A	27dBi, Integral NF Connector	\$53.99
	HG5827G-5PK	A	27dBi, Integral NF Connector, 5-Pack	\$259.99

## **Complete Wireless Solutions**

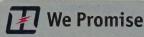


# HyperLink Antennas—Clearly the Best

# 900 MHz, 1.9 GHz, 2.4 GHz, 2.6 GHz, 3.5 GHz, 5.3 GHz, 5.4 GHz and 5.8 GHz Omni Antennas

HyperLink offers a wide range of Wi-Fi Omni-Directional antennas for multi-point applications where very wide coverage is desired. Designed to operate in the harshest of environments, HyperLink's Omni antennas far exceed other Omni-Directional antennas. Multiple applications are supported including IEEE 802.11 a/b/g/n wireless LAN systems, 900 MHz ISM, Wi-Fi and WiMax.

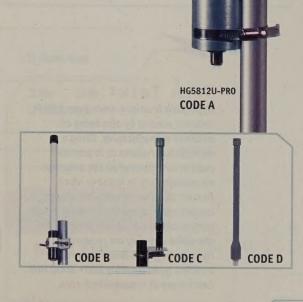
- · Multi-point applications
- · Public Wireless Hotspots
- · All weather operation
- · Wi-Fi
- · WiMax
- · RoHS compliant



HyperLink will ship in stock products the same day on all orders received before 4:00 PM EST. Rugged all weather operation

#### OMNI

Item	Code	Description	Price
HGV-906U	A	900 MHz OMNI-DIRECTIONAL ANTENNA 6dBi, Integral NF Connector	\$54.99
HG908U-PRO	A	8dBi, Integral NF Connector	\$124.99
1102000 110		1.9 GHz OMNI-DIRECTIONAL ANTENNA	\$124.99
HG1911U-PRO	A	11dBi, Integral NF Connector	\$139.99
		2.4 GHz. OMNI-DIRECTIONAL ANTENNA	
HGV-2404U	D	4dBi, Integral NF Connector	\$37.99
HGV-2406U	D	6dBi, Integral NF Connector	\$39.99
HGV-2409U	D	8.5dBi, Integral NF Connector	\$49.99
HG2408U-NF	В	8dBi, 12in Pigtail with NF Connector	\$62.99
HG2408U-NM	В	8dBi, 12in Pigtail with NM Connector	\$69.99
HG2408U-RBP	В	8dBi, 12in Pigtail with RP-BNC Connector	\$69.99
HG2408U-RSP	В	8dBi, 12in Pigtail with RP-SMA Connector	\$69.99
HG2408U-RTP	В	8dBi, 12in Pigtail with RP-TNC Connector	\$69.99
HG2408U-PR0	A	8dBi, Integral NF Connector	\$64.99
HG2408U-PR0-5PK	A	8dBi, Integral NF Connector, 5-Pack	\$299.99
HG2409U	D	8.5dBi, Integral NM Connector	\$49.99
HG2409UM-RSP	D	8.5dBi, Marine, 3ft Pigtail with RP-SMA Connector	109.99
HGV-2410U	C	10dBi, Integral NF Connector	\$59.99
HG2412U-NF	C	12dBi, 12in Pigtail with NF Connector	\$59.99
HG2412U-NM	C	12dBi, 12in Pigtail with NM Connector	\$69.99
HG2412U-RTP	C	12dBi, 12in Pigtail with RP-TNC Connector	\$69.99
HG2415U-PRO	A	15dBi, Integral NF Connector	\$114.99
HG2415U-PR0-5PK	A	15dBi, Integral NF Connector, 5-Pack	\$499.99
UC2600II		2.6 GHz OMNI-DIRECTIONAL ANTENNA	S
HG2609U	D	8.5dBi, Integral NM Connector 3.5 GHz OMNI-DIRECTIONAL ANTENNA	\$59.99
HG3511U-PR0	В	11dBi, Integral NF Connector	\$74.99
HG3511U-PRO-5PK	В	11dBi, Integral NF Connector, 5-Pack	\$375.00
HG5310U	C	5.3/5.8 GHz OMNI-DIRECTIONAL ANT 5.3 GHz 10dBi, Integral NF Connector	\$69.99
HG5412U	C	5.4 GHz, 12dBi, Integral NF Connector	\$79.99
HG5808U	C	5.8 GHz, 8dBi, Integral NF Connector	\$79.99
HG5812U-PRO	A	5.8 GHz, 12dBi, Integral NF Connector	\$89.99
HG5812U-PRO-5PK	A	5.8 GHz, 12dBi, Integral NF Connector, 5-Pack	\$439.99

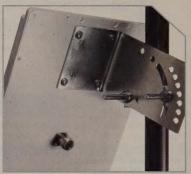




# 900 MHz, 1.9 GHz, 2.4 GHz and 2.6 GHz Patch Antennas

HyperLink's high performance directional flat patch Wi-Fi antennas are available for indoor and outdoor applications covering multiple popular frequencies. These Wi-Fi antennas are lightweight and feature an aesthetic UV-stable, UL flame rated white plastic radome which can also be painted to match the room or building structure. These HyperGain® Patch antennas can be installed for horizontal or vertical polarization. Additionally, they can be wall or ceiling mounted, as well as mast mounted using U-bolts.

- · Point to point systems
- · Point to multi-point systems
- · Indoor and outdoor models available
- · Compact size
- · Very lightweight
- · Easy to install



Mounting: HyperLink's patch antennas offer several unique mounting options. They can be mounted flat against a wall, or to a mast using a pair of 2 inch U-bolts. The antennas also accept most tilt-and-swivel security camera brackets equipped with standard 1/4-20 threads.



For a complete listing of HyperLink antennas and connector options visit www.hyperlinktech.com

## Tech Talk:

HyperLink is unique among most Wi-Fi antenna vendors by also being an antenna manufacturer. Being a manufacturer allows us to provide custom variations of all the antennas we manufacture in house or resell. In most cases we can ship out a large custom order in less than a week. Small custom orders are usually shipped on the same day they are received. HyperLink offers a broad range of antenna types covering 800 – 6000 MHz. Learn more at hyperlinktech.com.

#### PATCH

Item	Code	Description	Price
		900 MHz PATCH ANTENNAS	
HG908P-NF	A	8dBi, 8in Square, 12in Pigtail with NF Connector	\$44.9
HG908P-SM	A	8dBi, 8in Square, 12in Pigtail with SM Connector	\$44.9
		1.9 GHz PATCH ANTENNAS	- ST. ST. Y.
HG1908P-NF	A	8dBi, 4in Square, 12in Pigtail with NF Connector	\$39.9
HG1912P-NF	A	12dBi, 8in Square, 12in Pigtail with NF Connector	\$49.9
		2.4 GHz PATCH ANTENNAS	
HG2408P-NF	C	8dBi, 4in Round, 12in Pigtail with NF Connector	\$24.9
HG2409PCL-NF	A	8dBi, 4in Square, LH Cir Polarized, 12in Pigtail with NF Connector	\$29.99
HG2409PCR-NF	A	8dBi, 4in Square, RH Cir Polarized, 12in Pigtail with NF Connector	\$29.9
HG2409P-NF	A	8dBi, 4in Square, 12in Pigtail with NF Connector	\$21.9
HG2412P	В	12dBi, 4in Square, Integral NF Connector	\$25.9
HG2414P	A	14dBi, 8in Square, Integral NF Connector	\$34.9
HG2414P-NF	A	14dBi, 8in Square, 12in Pigtail with NF Connector	\$32.9
HG2416P	A	15.5dBi, 8in Square, Integral NF Connector	\$44.9
HG2458-09P	A	9dBi, 8in Square, Multi-Band, Integral NF Connector	\$69.9
	9/19/10	2.6 GHZ PATCH ANTENNAS	
HG2614P-NF	A	14dBi, 8in Square, 12in Pigtail with NF Connector	\$44.9

# We want to hear from you!

Record mail code from back cover

What do you think of our product selection?     What products would you like to see?	□ Excellent	☐ Average	
2. What do you think of our prices?	□ Excellent	☐ Average	
3. What do you think of this catalog?  How can we improve it?	□ Excellent	☐ Average	☐ Needs Work
4. Have you visited our new and enhanced website		n.com?	☐ Yes ☐ No
5. How would you rate our website?  How can we improve it?	□ Excellent		
6. Other comments:			
Name:			
Company:			If you prefer, you can fill out this survey online at
Address:			www.HyperLinkTech.com/Survey
City:	State: Zip: _		Thank You!
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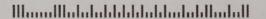
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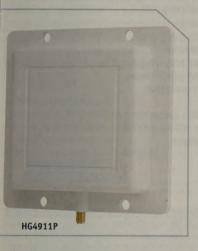


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# 3.5 GHz, 4.9 GHz, 5.1 GHz, 5.3 GHz, 5.4 GHz and 5.8 GHz Patch Antennas

HyperLink's extensive line of patch antennas that cover frequencies from 3.5 to 5.8 GHz are ideal for applications such as WiMAX and public safety. Several of the Patch antennas are broadband/multi-band antennas that eliminate the need to purchase different antennas for each frequency being used. This simplifies installations since the same antenna can be used for a wide array of wireless applications.



Need longer cable lengths? See Page 35!

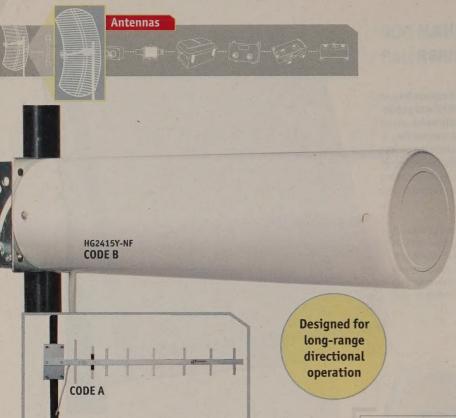
- Homeland security
- Public safety services: fire, police, security
- Rapid deployment installations
- Large scale WLL
- Personal area network (PAN)

#### PATCH

Item	Code	Description	Price
		3.5 GHz PATCH ANTENNAS	No.
HG3509P-NF	A	8dBi, 4in Square, 12in Pigtail with NF Connector	\$39.99
HG3514P-NF	A	14dBi, 8in Square, 12in Pigtail with NF Connector	\$49.99
		4.9 GHZ PATCH ANTENNAS	
HG4953P	A	8dBi, 4in Square, Broadband, Integral SM Connector	\$49.99
HG4911P	A	11dBi, 4in Square, Integral SM Connector	\$49.99
		5.3 GHz PATCH ANTENNAS	
HG5308P	A	8dBi, 4in Square, Integral SM Connector	\$39.99
HG5311P	A	11dBi, 4in Square, Integral SM Connector	\$49.99
		5.4 GHZ PATCH ANTENNAS	
HG5408P	A	8dBi, 4in Square, Integral SM Connector	\$39.99
HG5411P	A	11dBi, 4in Square, Integral SM Connector	\$49.99
HG5419P	A	19dBi, 7in Square, Integral FM Connector	\$49.99
		5.8 GHz PATCH ANTENNAS	
HG5808P	A	8dBi, 4in Square, Integral SM Connector	\$39.99
HG5811P	A	11dBi, 4in Square, Integral SM Connector	\$49.99
HG5819P	A	19dBi, 7in Square, Integral FM Connector	\$49.99
HG5158P	A	8dBi, 4in Square, Broadband, Integral SF Connector	\$49.99
HG5158-23P	A	23dBi, 12in Square, Broadband, Integral NF Connector	\$79.99



- · 3.6 GHz to 3.7 GHz (3650-3700 MHz) band applications
- · IEEE 802.16e applications
- · Mobile WiMAX
- · SOFDMA

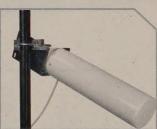


# 900 MHz, 1.9 GHz, 2.4 GHz and 5.8 GHz Yagi Antennas

These rugged outdoor rated directional Yagi antennas are ideally suited for IEEE 802.11b/g/n (draft N), PCS, and 900 MHz ISM applications. HyperLink offers both radome enclosed models as well as non-radome enclosed Yagi antennas. A multitude of gain and connector options are available. For a complete listing of HyperLink's Yagi antennas visit www.hyperlinktech.com.

- · 2.4 GHz ISM band
- 2.4 GHz IEEE 802.11b/g/n Wireless LAN applications
- · All weather operation
- · Wi-Fi
- · Wireless video systems
- · 1.9 GHz for PCS
- · RoHS compliant





Mounting: The HG2415Y-NF antenna is supplied with a 60 degree tilt-and-swivel mast mount kit. An optional wall/ceiling mount kit is available.

3	Item	Code	Description	Price				
			900 MHz YAGI ANTENNAS					
-	HG909Y-NF	A	9dBi, Stainless Steel, 18in Pigtail with NF Connector	\$31.99				
	HG909Y-NM	A	9dBi, Stainless Steel, 18in Pigtail with NM Connector	\$45.9				
	HG913Y-NF	A	13dBi, Staineless Steel, 18in Pigtail with NF Connector	\$45.9				
	HG913Y-NM	A	13dBi, Stainless Steel, 18in Pigtail with NM Connector	\$59.99				
-	HG914Y-NF	A	14dBi, Aluminum, 12in Pigtail with NF Connector	\$119.99				
-	HG914Y-NM	A	14dBi, Aluminum, 12in Pigtail with NF Connector	\$129.99				
1			1.9 GHz YAGI ANTENNAS					
W!	HG1912SY-NF	A	12dBi, Stainless Steel, 7in Pigtail with NF Connector	\$44.99				
	2.4 GHz YAGI ANTENNAS							
	HG2409Y-NF	В	9dBi, Radome Enclosed, 12in Pigtail with NF Connector	\$39.99				
	HG2409Y-NM	В	9dBi, Radome Enclosed, 12in Pigtail with NM Connector	\$49.99				
W!	HG2412SY-NF	A	12dBi, Stainless Steel, 7in Pigtail with NF Connector	\$44.99				
	HG2412Y-NF	В	12dBi, Radome Enclosed, 12in Pigtail with NF Connector	\$44.99				
	HG2412Y-NM	В	12dBi, Radome Enclosed, 12in Pigtail with NM Connector	\$54.99				
1	HG2415Y-NF	В	14.5dBi, Radome Enclosed, 12in Pigtail with NF Connector	\$44.99				
-	HG2415Y-NM	В	14.5dBi, Radome Enclosed, 12in Pigtail with NM Connector	\$44.99				
1			2.4/5.8 GHz LOG PERIODIC ANTENNA	S				
W!	HG2458-08LP-NF	C	8dBi, Radome Enclosed, 9in Pigtail with NF Connector	\$64.99				

## Tech Talk:

Antennas are the most important element of a wireless link. If the wrong antenna is chosen, the link will not work. Antennas come in all shapes and sizes. They can look quite different from each other yet they can have similar performance and radiation patterns. In many cases the choice of antenna type is based on personal preference or aesthetics in addition to performance and cost. Learn more at hyperlinktech.com.

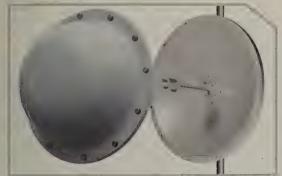


# 2.4 GHz, 3.5 GHz, 5.1 GHz, 5.3 GHz, 5.4 GHz and 5.8 GHz Parabolic Dish Antennas

HyperLink's Wi-Fi parabolic dish antennas feature a high quality aluminum reflector dish for superior strength. The dish is coated in a light gray UV-inhibited polymer for durability and aesthetics. These directional dish antennas can be used in point to point as well as point to multi-point applications.

HyperGain\* radome covers are an ideal way to provide additional protection to our parabolic dish antennas. These lightweight radome kits feature fiberglass construction and UV stable gray finish. Drain holes are provided on the radome cover to help prevent moisture build-up inside the dish antenna.

- · Point to point systems
- Point to multi-point systems
- High quality aluminum construction
- All weather operation
- · Many frequencies to choose from
- · RoHS compliant



Radome cover - protects against the elements



radome cover kits available

Item	Code	Description	Frig
HG2414D	D	14dBi, 260mm DIA, Integral NF Connector	\$33.99
HG3516D	Α	16dBi, 246mm DIA, Integral NF Connector	\$49.99
HG5328D	В	28dBi, 600mm DIA, Integral NF Connector	\$162.99
HG5423D	В	23dBi, 400mm DIA, Integral NF Connector	\$129.99
HG5428D HG5432D	B	28dBi, 600mm DIA, Integral NF Connector 32dBi, 900mm DIA, Integral NF Connector	\$162.99 \$239.99
		Air-	
HG5817D	Α .	17dBi, 246mm DIA, Integral NF Connector	\$39.99
HG5824D	В	24dBi, 400mm DIA, Integral NF Connector	\$129.99
HG5829D	В	29dBi, 600mm DIA, Integral NF Connector	\$162.99
HG5833D	B	33dBi, 900mm DIA, Integral NF Connector	\$239.99
HG5158D	1 C	30dBi, Offset Feed, 830mm DIA, Integral NF Connector	\$149.99
HG5158DP-29D	В	28,5dBi, Dual Polarized, 600mm DIA, Integral NF Connector	\$259.99
HG5158DP-32D	В	32dBi, Dual Polarized, 900mm DIA, Integral NF Connector	\$329.99
			STATE OF
HGR-04		Radome Cover Kit for 400mm DIA Dish	\$42.99
HGR-06	1 1	Radome Cover Kit for 600mm DIA Dish	\$49.99
HGR-09		Radome Cover Kit for 900mm DIA Dish	\$69.99







- · Tilt-and-swivel connectors
- · Point to point systems
- · Point to multi-point systems
- · Multipoint and mobile applications
- · Wi-Fi access points
- · Multiple frequency choices



## 1.9 GHz, 2.4 GHz Rubber Duck Desktop Mobile Antennas

HyperGain® Omni-Directional Rubber Duck wireless LAN antennas provide broad coverage and 3-9 dBi gain. These magnetic mount antennas feature a coaxial sleeve design with an Omni-Directional pattern. These antennas were designed for IEEE 802.11b/g/n wireless LANs and 1.9 GHz cellular PCS radio applications. Mobile applications for these antennas include service vehicles, public transportation, mining vehicles, as well as numerous other commercial and industrial applications where mobility is required. The magnetic base is suitable for affixing to vehicles or other metal surfaces as well as sitting on a tabletop or shelf.

- · Rugged magnetic base
  - 2.4 GHz IEEE 802.11b/g/n Wireless LAN applications
- · 1.9 GHz PCS cellular
- · Compact size
- RoHS compliant



# 900 MHz, 1.9 GHz, 2.4/5.8 GHz and 3.5 GHz Rubber Duck Antennas

These high performance Omni-Directional Rubber Duck antennas provide broad coverage and multiple gain options. HyperLink's flexible Rubber Duck antennas feature tilt-and-swivel connectors allowing them to be used vertically, at a right angle, or any angle in-between. Suitable as a replacement RF antenna for radios, wireless video transmitters and receivers, as well as digital spread spectrum radios.

#### RUBBER DUCK

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HG903RD-RSP	B	3dBi, Integral Tilt/Swivel RP-SMA Connector	\$10.99
HG903RD-SM	B	3dBi, Integral Tilt/Swivel SM Connector	\$10.99
HG905RD-RSP	В	5dBi, Integral Tilt/Swivel RP-SMA Connector	\$19.99
HG905RD-SM	В	5dBi, Integral Tilt/Swivel SM Connector	\$19.99
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HG1903RD-RSP	В	3dBi, Integral Tilt/Swivel RP-SMA Connector	\$9.99
		10 - 705 - 30A	
HG2401RD-MMCX	C	1dBi, Integral Rt Angle Fixed Mount MMCX Connector	\$4.99
HG2401RD-MC	C	1dBi, Integral Rt Angle Fixed Mount MC Connector	\$2.99
HG2402RD-RSF	B	2.2dBi, Integral Tilt/Swivel RP-SMA Connector	\$5.99
HG2403RD-NM	B	3dBi, Integral Tilt/Swivel NM Connector	\$7.99
HG2403RD-RSF	B	3dBi, Integral Tilt/Swivel RP-SMA Connector	\$7.99
HG2403RD-RTF	В	3dBi, Integral Tilt/Swivel RP-TNC Connector	\$7.99
HG2405RD-NM	В	5dBi, Integral Tilt/Swivel NM Connector	\$14.99
HG2405RD-RSP	В	5dBi, Integral Tilt/Swivel RP-SMA Connector	\$9.99
HG2405RD-RTP	В	5dBi, Integral Tilt/Swivel RP-TNC Connector	\$9.99
HG2407RD-NM	В	7dBi, Integral Tilt/Swivel NM Connector	\$9.99
HG2407RD-RSP	В	7dBi, Integral Tilt/Swivel RP-SMA Connector	\$12.99
HG2407RD-RTP	B	7dBi, Integral Tilt/Swivel RP-TNC Connector	\$12.99
HG2407RD-SM	В	7dBi, Integral Tilt/Swivel SM Connector	\$15.99
HG2409RD-NM	B	9dBi, Integral Tilt/Swivel NM Connector	\$22.99
HG2409RD-RSP	В	9dBi, Integral Tilt/Swivel RP-SMA Connector	\$18.99
HG2409RD-RTP	B	9dBi, Integral Tilt/Swivel RP-TNC Connector	\$18.99
HG2409RD-SM	B	9dBi, Integral Tilt/Swivel SM Connector	\$18.99
HG3505RD-RSP	B	5dBi, Integral Tilt/Swivel RP-SMA Connector	\$14.99
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HG2458-5RD-RSP	A	3/5dBi, Integral Tilt/Swivel RP-SMA Connector	\$16.99
HG2458RD-RSP	В	3dBi, Integral Tilt/Swivel RP-SMA Connector	\$12.99
HG2458RD-SM	В	3dBi, Integral Tilt/Swivel SM Connector	\$12.99
HG2458RD-TM	B	3dBi, Integral Tilt/Swivel TM Connector	\$6.49
· 1. * * * % .			10 minh . v = 1

See page 32 for mounting options.



For a complete listing of HyperLink antennas and connector options visit www.hyperlinktech.com

#### MAGNETIC MOUNT SUBBER DUCK

		* *
	10 July - 10 July 10 J	F2122 -000kT
HG1903MGRD-SM	3dBi, 5ft Cable with SM Connector	\$19.99
HG1903MGRD-SNP	3dBi, 5ft Cable with SMA-Nano Connector	\$19.99
HG2407MGRD-RSP	7dBi, 5ft Cable with RP-SMA Connector	\$19.99
HG2407MGRD-RTP	7dBi, 5ft Cable with RP-TNC Connector	\$19.99
HG2409MGRD-RSP	9dBi, 5ft Cable with RP-SMA Connector	; \$25.99
HG2409MGRD-RTP	9dBi, 5ft Cable with RP-TNC Connector	\$25.99
HG2458MGRD-RSP	3/5dBi, 5ft Cable with RP-SMA Connector	\$24.99
HG2458MGRD-RTP	3/5dBi, 5ft Cable with RP-TNC Connector	\$24.99

HG1903MGRD-SM

# Styles for Every Application

HyperLink's Rubber Duck antennas make suitable replacement antennas for many popular wireless access points and wireless routers. Our higher gain Rubber Duck antennas can also help achieve greater range and improved signal than most stock antennas that come with those types of radios.

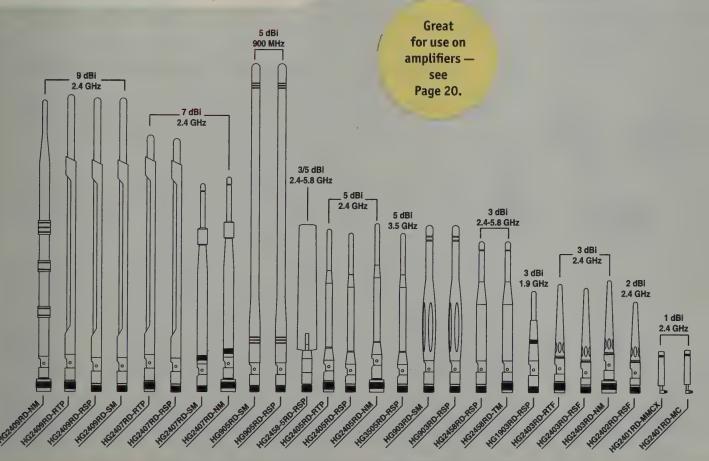


HG2403RD-NM shown on HA2401MG-1000 2.4 GHz compact amplifier (see Page 21).



HG2405RD-RTP shown on a Linksys® WAP54G wireless access point

# Check out this Handy Chart



HG2403MGURW CODE F

## 2.4 GHz Mobile Mount Antennas

HyperLink's extensive line of magnetic mount and mast mount mobile Omni-Directional antennas are perfect for demanding mobile applications including law enforcement, construction vehicles, and mobile metering. Several styles are offered with many frequency and gain choices supporting IEEE 802.11b/g/n.



**Mounting:** Magnetic mounting system. A fixed mount is also available for permanent installation through the roof or other vehicle surface.



For a complete listing of HyperLink antennas and connector options visit www.hyperlinktech.com

- · All weather construction
- · IEEE 802.11b/g/n
- Bluetooth° and Wi-Fi
- Magnetic and mast mount options
- · RoHS compliant

Ideal for mobile outdoor applications

MODILE MOUNTS



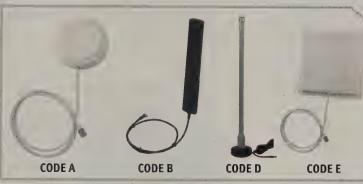
			7110
		MACNET	
HMA6-RSP05	Α	RP-SMA Jack to RP-SMA Plug, 5ft 100-Series	\$14.99
HMA6-RSP10	A	RP-SMA Jack to RP-SMA Plug, 10ft 100-Series	\$19.99
HMA6-RTP05	A	RP-SMA Jack to RP-TNC Plug, 5ft 100-Series	\$14.99
HMA6-RTP10	A	RP-SMA Jack to RP-TNC Plug, 10ft 100-Series	\$19.99
HMA1-NFA10	В	NMO to N-Female, 10ft 195-Series	\$19.95
HMA1-NMA10	B	NMO to N-Male, 10ft 195-Series	\$19.95
HMA1-RSPA10	В	NMO to RP-SMA Plug, 10ft 195-Series	\$19.95
HMA1-RTPA10	В	NMO to RP-TNC Plug, 10ft 195-Series	\$19.95
HMA3-NFA10	C	N-Female to N-Female, 10ft 195-Series	\$24.99
HMA3-NMA10	C	N-Female to N-Male, 10ft 195-Series	\$24.99
HMA3-RSPA10	C	N-Female to RP-SMA Plug, 10ft 195-Series	\$24.99
HMA3-RTPA10	C	N-Female to RP-TNC Plug, 10ft 195-Series	\$24.99
		PROPERTY OF THE PARTY OF THE PA	
HG2403MGU-NM	Е	3dBi, Dual Band, 10ft Cable with NM Connector	\$34.99
HG2403MGU-RSP	E	3dBi, Dual Band, 10ft Cable with RP-SMA Connector	\$44.99
HG2403MGU-RTP	E	3dBi, Dual Band, 10ft Cable with RP-TNC Connector	\$44.99
HG2403MGURW-NM	F	3dBi, White Radome, 10ft Cable with NM Connector .	\$34.99
HG2403MGURW-RSP	F	3dBi, White Radome, 10ft Cable with RP-SMA Connector	\$44.99
HG2403MGURW-RTP	F	3dBi, White Radome, 10ft Cable with RP-TNC Connector	\$44.99
HG2403MGURB-NM	F	3dBi, Black Radome, 10ft Cable with NM Connector	\$34.99
HG2403MGURB-RSP	F	3dBi, Black Radome, 10ft Cable with RP-SMA Connector	\$44.99
HG2403MGURB-RTP	F	3dBi, Black Radome, 10ft Cable with RP-TNC Connector	\$44.99
HG2405MGU-NM	D	5dBi, 10ft Cable with NM Connector	\$39.99
HG2405MGU-RSP	D	5dBi, 10ft Cable with RP-SMA Connector	\$49.99
HG2405MGU-RTP	D	5dBi, 10ft Cable with RP-TNC Connector	\$49.99
HG2407MGU-NF	H	7dBi, 10ft Cable with NF Connector	\$39.99
HG2407MGU-RSP	H	7dBi, 10ft Cable with RP-SMA Connector	\$49.99
HG2409MGU-NF	I	8.5dBi, 10ft Cable with NF Connector	\$64.99
HG2409MGU-NM	I	8.5dBi, 10ft Cable with NM Connector	\$64.99
HG2409MGU-RSP	I	8.5dBi, 10ft Cable with RP-SMA Connector	\$74.99
		CONTRACTOR OF THE PARTY OF THE	
HG2403U-NMO	E	3dBi, Dual Band, Integral NMO Connector	\$29.99
HG2403UR-NMOW	F	3dBi, White Radome, Integral NMO Connector	\$29.99
HG2403UR-NM0B	F	3dBi, Black Radome, Integral NMO Connector	\$29.99
HG2405U-NMO	D	5dBi, Integral NMO Connector	\$19.99
HG2405UR-NMO	G	5dBi, Black Radome, Flex-Base, Integral NMO Connector	\$99.99
HG2407U	H	7dBi, Integral NM Connector	\$24.99
HG2409U	I	8.5dBi, Integral NM Connector	\$49.99
	-		

# 900 MHz, 1.2 GHz, 1.9 GHz and 2.4 GHz Range Extender Antennas

HyperLink's range extender antennas can be used to achieve greater range than standard Rubber Duck antennas or a PC card's internal antenna. Full 360° coverage is provided by the Omni-Directional antennas and the Patch style range extender antennas feature directional operation. This series supports various applications including 2.4 GHz IEEE 802.11b/g/n wireless LANs, 800-1800 MHz ISM, GSM and RFID. Patch style antennas are designed for indoor use only and the Omni-Directional style range extenders can be used indoors or outdoors.

- · Greater range than typical Rubber Duck antennas
- · Multiple application/frequency choices
- · Directional and Omni-Directional options
- · Mobile applications
- · IEEE 802.11b/g/n
- · RoHS compliant

NEW!



### RANGE EXTENDERS

0		A BILL	LEGUL DER KANGELEGENDE DAN BENNASK	
	RE905U-RSP	C	5dBi, Integral MAG Base, 4ft Cable with RP-SMA Connector	\$19.99
	RE905U-SM	C	5dBi, Integral MAG Base, 4ft Cable with SM Connector	\$19.99
	RE1208P-SM	E	8dBi, 8in Square, 3ft Pigtail with SM Connector	\$29.99
			1 5 80 14012 10 2001 10111411	
	RE1903U-SM	C	3dBi, Integral MAG Base, 4ft Cable with SM Connector	\$15.99
	RE1903U-SNP	C	3dBi, Integral MAG Base, 4ft Cable with SMA-Nano Connector	\$15.99
	RE1905U-SM	A	5dBi, Integral MAG Base, 4ft Cable with SM Connector	\$19.99
L	RE1905U-SNP	1 A	5dBi, Integral MAG Base, 4ft Cable with SMA-Nano Connector	\$19.99
	RE05ER-MC	I B	5dBi, 19in Cable with MC Connector	\$4.99
	RE05ER-MM	B	5dBi, 19in Cable with MCCX Connector	\$4.99
	REOSET-MM	В.	5dBi, Integral MAG Base, 4ft Cable with MMCX Connector	\$24.99
	RE05ET-RSP	В	5dBi, Integral MAG Base, 4ft Cable with RP-SMA Connector	\$14.99
	RE05U-MM	ic	5dBi, Integral MAG Base, 4ft Cable with MMCX Connector	\$8.99
	RE05U-RSP	ic	5dBi, Integral MAG Base, 4ft Cable with RP-SMA Connector	\$8.99
	RE05U-RTP	C	5dBi, Integral MAG Base, 4ft Cable with RP-TNC Connector .	\$8.99
1	RE06P-RSP	E	6dBi, 4in Square, 4ft Cable with RP-SMA Connector	\$26.99
i	REO6P-RTP	Ē	6dBi, 4in Square, 4ft Cable with RP-TNC Connector	\$26.99
1	RE07U-MM	Ċ	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	\$11.99
	RE07U-RSP	ič	7dBi, Integral MAG Base, 4ft Cable with RP-SMA Connector	\$11.99
ı	RE07U-RTP	i . C	7dBi, Integral MAG Base, 4ft Cable with RP-TNC Connector	\$11.99
ıi.	REO8P-RSP	E	8dBi, 4in Round, 4ft Cable with RP-SMA Connector	\$34.99
i.	REO8P-RTP	Ē	8dBi, 4in Round, 4ft Cable with RP-TNC Connector	\$34.99
1	RE09U-RSP	D	8dBi, Integral MAG Base, 4ft Cable with RP-SMA Connector	\$59.99
ı	RE09U-RTP	D	8dBi, Integral MAG Base, 4ft Cable with RP-TNC Connector	\$59.99
ш	RE09P-RSP	E	8dBi, 4in Square, 4ft Cable with RP-SMA Connector	\$29.99
н	REO9P-RTP	E	8dBi, 4in Square, 4ft Cable with RP-TNC Connector	\$29.99
ш	RE11DP-RSP	E	11dBi, 8in Square, Dual Polarized, 3ft Cables with RP-SMA Connectors	\$27.99
	RE11DP-RTP	Ē	11dBi, 8in Square, Dual Polarized, 3ft Cables with RP-TNC Connectors	\$27.99
	RE11DS-RSP	Ē	11dBi, 8in Square, Dual Spacial, 3ft Cables with RP-SMA Connectors	\$27.99
	RE11DS-RTP	I E	11dBi, 8in Square, Dual Spacial, 3ft Cables with RP-TNC Connectors	\$27.99
	RE14P-RSP	E	14dBi, 8in Square, 3ft Cable with RP-SMA Connector	\$34.99
П	RE14P-RTP	E	14dBi, 8in Square, 3ft Cable with RP-TNC Connector	\$34.99



CODE C



## 900 MHz, 2.4 GHz, 5.4 GHz and 5.8 GHz Sectorial Omni-Directional Array Antennas

HyperLink's sector antennas are designed for Cell Site installations and include a variety of gain, frequency and radiation patterns. These Wi-Fi antennas feature HyperLink's unique heavy-duty mounting systems that allow installation from level to over 20 degrees down-tilt. In addition, 90, 120 and 180 degree arrays are available supporting a wide range of applications. These antennas feature stainless steel construction for all-weather operation.

- Cell Site applications
- · All-weather operation
- · 0-20 degree down-tilt
- Multiple array configurations
- RoHS compliant



Mounting: The array can be mounted directly onto masts 1¼" to 2" (31.7 to 50.8 mm) in dia. using the provided U-Bolts. The mounting bracket can also accept 3" (76.2 mm) U-Bolts (not included) for larger masts.

#### Single Feed Models (1 Input Feeds All Antennas)

- · Sector Antennas
- · Signal Splitter w/N-Female Connectors
- · 2 ft. 400-Series Jumper Cables -
- N-Male to N-Male
- · Array Mounting System

# Individual Feed Models (1 Input for Each Antenna)

\$899.99

- · Sector Antennas
- · Array Mounting System

## SECTOREAL ARRAY ANTENNAS

		- (.	5-5-95e	Price
	,4			
/! l	HK913-120	A	13dBi, Multi-Feed, Incl. (3) 120° ANT with Mounting Array	\$750.00
/!	HK913-120NF	A	13dBi, Single–Feed, Incl. (3) 120° ANT with Mounting Array, Splitter, 3 Cables	\$870.00
			The state of the s	
	HK2414-090	A	14dBi, Multi-Feed, Incl. (4) 90° ANT with Mounting Array	\$550.00
	HK2414-090NF	A	14dBi, Single-Feed, Incl. (4) 90° ANT with Mounting Array, Splitter, 4 Cables	\$650.00
	HK2414-120	A	14dBi, Multi-Feed, Incl. (3) 120° ANT with Mounting Array	\$550.00
	HK2414-120NF	A	14dBi, Single-Feed, Incl. (3) 120° ANT with Mounting Array, Splitter, 3 Cables	\$650.00
	HK2414H-090	A	14dBi, Multi-Feed, Incl. (4) 90° H-Pol ANT with Mounting Array	\$750.00
	HK2414H-090NF	A	14dBi, Single-Feed, Incl. (4) 90° H-Pol ANT with Mounting Array, Splitter, 4 Cables	\$850.00
	HK2415-180	В	15dBi, Multi-Feed, Incl. (2) 180° ANT with Mounting Array	\$1,100.00
	HK2415-180NF	В	15dBi, Single-Feed, Incl. (2) 180° ANT with Mounting Array, Splitter, 2 Cables	\$1,200.00
	HK2417-090	A	17dBi, Multi-Feed, Incl. (4) 90° ANT with Mounting Array	\$810.00
	HK2417-090NF	A	17dBi, Single-Feed, Incl. (4) 90° ANT with Mounting Array, Splitter, 4 Cables	\$960.00
	HK2417-120	A	17dBi, Multi-Feed, Incl. (3) 120° ANT with Mounting Array	\$650.00
	HK2417-120NF	A	17dBi, Single-Feed, Incl. (3) 120° ANT with Mounting Array, Splitter, 3 Cables	\$750.00
	HK2420-090	A	20dBi, Multi-Feed, Incl. (4) 90° ANT with Mounting Array	\$1,750.00
	HK2420-090NF	A	20dBi, Single-Feed, Incl. (4) 90° ANT with Mounting Array, Splitter, 4 Cables	\$1,900.00
	HK2420-120	A	20dBi, Multi-Feed, Incl. (3) 120° ANT with Mounting Array	\$1,250.00
	HK2420-120NF	A	20dBi, Single-Feed, Incl. (3) 120° ANT with Mounting Array, Splitter, 3 Cables	\$1,350.00
	HK5417-090	C	17dBi, Multi-Feed, Incl. (4) 90° ANT with Mounting Array	\$699.99
	HK5417-090NF	C	17dBi, Single-Feed, Incl. (4) 90° ANT with Mounting Array, Splitter, 4 Cables	\$899.99
	4	-	THE RESERVE OF THE PARTY OF THE	
	HK5817-090	C	17dBi, Multi-Feed, Incl. (4) 90° ANT with Mounting Array	\$699.99

HK5817-090NF C 17dBi, Single-Feed, Incl. (4) 90° ANT with Mounting Array, Splitter, 4 Cables

# Professional Grade Antennas

# 900 MHz, 2.4 GHz, 3.5 GHz, 5.4 GHz, 5.8 GHz and Multi-Band 2.4/5.8 GHz Sectorial Panel Antennas

HyperLink's Sectorial Panel Antennas are available in multiple frequencies, gain and 90 to 180 degrees. They can be used standalone or in circular groups to maximize coverage and feature heavy-duty plastic radome for all-weather operation, with mounting systems that adjust to pinpoint direction. They can be used for wireless Internet Cell Sites and are an ideal choice for wireless Internet.



#### SECTORIAL PANEL ANTENNAS

	Item	Code	Description	Price
NEW!	HG913P-120	А	900 MHZ SECTORIAL PANEL ANTENNAS  13dBi, 120°, Integral NF Connector	\$249.99
14244.	1109131-120		2.4 GHZ SECTORIAL PANEL ANTENNAS	\$249.99
	HG2414SP-090	Α	14dBi, 90°, Integral NF Connector	\$149.99
	HG2414SP-120	Α	14dBi, 120°, Integral NF Connector	\$149.99
	HG2414HSP-090	· A	14dBi, 90°, Horizontal Polarized, Integral NF Connector	\$149.99
NEW!	HG2414DP-090	Α	14dBi, 90°, Dual Polarized, 2 Integral NF Connectors	\$179.99
	HG2415P-180	B	15dBi, 180°, Integral NF Connector	\$479.99
1	HG2417P-090	A	17dBi, 90°, Integral NF Connector	\$164.99
	HG2417P-120	A	17dBi, 120°, Integral NF Connector	\$164.99
	HG2420P-090	A	20dBi, 90°, Integral NF Connector	\$164.99
	HG2420P-120	A	20dBi, 120°, Integral NF Connector	\$399.95
			3.5 GHz SECTORIAL PANEL ANTENNAS	
	HG3515P-120	Α	15dBi, 120°, Integral NF Connector	\$199.99
			.4 GHZ SECTORIAL PANEL ANTENNAS	
	HG5417P-090	C	17dBi, 90°, Integral NF Connector	\$149.99
			5.8 GHz SECTORIAL PANEL ANTENNAS	
	HG5817P-090	C	17dBi, 90°, Integral NF Connector	\$149.99
			2.4/5.8 GHz SECTORIAL PANEL ANTENNAS	
NEW!	HG2458-14P-090	. A	14dBi, 90°, 2 Integral NF Connectors	\$189.99



# Weatherproof Enclosures

# Ideal for Every Application

HyperLink's Weatherproof Enclosures are ideal for remote WLAN Wi-Fi equipment installations, indoor and outdoor or hot and cold temperature environments. They are also great for solar powered applications, corrosive environments, sub-zero installations, hotspot applications and protection of equipment from theft or damage. Available with a wide range of options including heat, cooling and Power-over-Ethernet interfaces. In addition to our standard enclosure products, HyperLink can custom manufacture enclosures based on customer requirements for large-scale projects. Visit www.hyperlinktech.com for more details.

**NEMA/IEC** 

NEMA (National Electrical Manufacturers Association) and the IEC (International Electrotechnical Commission) are two standards groups, which have devised two rating systems for enclosures, which define the enclosures resistance to dust, moisture, water immersion and ice. The IEC's rating is referred to as the IP or Ingress Protection rating. The table below outlines NEMA and IEC IP enclosure ratings

NEMA Enclosure Type No.	NEMA Definition	IEC Enclosure Class
1	General-purpose. Protects against dust, light and indirect splashing but is not dust-tight; primarily prevents contact with live parts; used indoors and under normal atmospheric conditions.	IP10
2	Drip-tight. Similar to Type 1 but with addition of drip shields; used where condensation may be severe (as in cooling rooms and laundries).	IP11
3 and 3S	Weather-resistant. Protects against weather hazards such as rain and sleet; used outdoors on ship docks, in construction work and in tunnels and subways.	IP54
3R	Intended for outdoor use. Provides a degree of protection against falling rain and ice formation.  Meets rod entry, rain, external icing and	IP14
4 and 4X	rust-resistance design tests. Watertight (weatherproof). Must exclude at least 65 GPM of water from 1-in. nozzle delivered from a distance not less than 10 ft for 5 min. Used outdoors on ship docks, in dairies and in breweries.	IP56
5	Dust-tight. Provided with gaskets or equivalent to exclude dust; used in steel mills and cement plants.	IP52
6 and 6P	Submersible. Design depends on specified conditions of pressure and time; submersible in water; used in quarries, mines and manholes.	IP67
7	Hazardous. For indoor use in Class I, Groups A, B, C and D environments as defined in the NEC.	1 -
8	Hazardous. For indoor and outdoor use in locations classified as Class I, Groups A, B, C and D as defined in the NEC.	-
9	Hazardous. For indoor and outdoor use in locations classified as Class II, Groups E, F or G as defined in the NEC.	-
10	MSHA. Meets the requirements of the Mine Safety and Health Administration, 30 CFR Part 18 (1978).	
11	General-purpose. Protects against the corrosive effects of liquids and gases. Meets drip and corrosion-resistance tests.	-
12 and 12K	General-purpose. Intended for indoor use, provides some protection against dust, falling dirt and dripping noncorrosive liquids. Meets drip, dust and rust resistance tests.	IP52
13	General-purpose. Primarily used to provide protection against dust, spraying of water, oil and noncorrosive coolants. Meets oil exclusion and rust resistance design tests.	IP54

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		<b>8</b>		<b>S</b>		<b>S</b>	<b>S</b>		NB141207-10FS
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		<b>a</b>		•	•	•			NB181608-1HF
		<b>a</b>		6	6	<b>o</b>	•		NB181608-1HFS
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		•		<b>a</b>		<b>a</b>			NB141207-20F
		*		8	<b>a</b>	<b>a</b>			NB141207-2HF
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		<i>a</i>		-	<b>a</b>				NB141207-4H0
	-	~		<b>a</b>					NB141207-40F
									NB141207-40FS
									NB141207-40V
18"x16"x8"									NB181608-400
3 to 10 to 1				-					NB181608-40F
				-					NB181608-40FS
				-					NB181608-40F5
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40% 40% 0%				-					NB141207-50V
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		64							NB181608-50F
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# Non-Powered Weatherproof NEMA Rated Enclosures

Non-powered weatherproof enclosures from HyperLink are great for applications requiring the protection of valuable equipment yet do not require on-board power. Built for the long haul, these enclosures are constructed of molded fiberglass reinforced polyester and are well suited for high temperature or corrosive environments. Some models are available with an integrated mounting plate.



## NUM-POWERED

Item		
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NB141207	14x12x7", No Plate	\$64.99
NB141207-KIT	14x12x7", Blank Mounting Plate	\$79.99
NB141207-01	14x12x7", Mounting Plate	\$129.99
NB181608	18X16X8", No Plate	\$149.99
NB181608-KİT	18x16x8", Blank Mounting Plate	\$172.99
NB181608-01	18x16x8", Mounting Plate	\$199.99
	SENA 3R ENCLOS	URES
NB141207-00V	14x12x7", Mounting Plate, Vent	\$159.99
NB181608-00V	18x16x8", Mounting Plate, Vent	\$249.99



# 120 VAC Weatherproof NEMA Rated Enclosures

NEW!

HyperLink's 120 VAC powered NEMA enclosures are available with many options including integrated mounting plates, heaters and fans. These enclosures can be used in Wi-Fi hotspots, harsh environments requiring cooling or heating and in virtually any other application where communications equipment is vulnerable to theft or the elements. See individual listings below for options.



NB141207-10F

[	Îtem	D =	-				
	NB141207-10V	14x12x7", Mounting Plate, Vent	\$189.99				
	NB141207-10F	14x12x7", Mounting Plate, Fan	\$199.99				
	NB141207-10FS	14x12x7", Mounting Plate, Solid State Controlled Fan	\$234.99				
	NB141207-1HF	14x12x7", Mounting Plate, Heater/Fan	\$249.99				
	NB141207-1HFS	14x12x7", Mounting Plate, Solid State Controlled Heater/Fan	\$299.99				
NEW!	NB141207-10FSD	14x12x7", Mounting Plate, Solid State Controlled Dual Fans	\$279.99				
	NB181608-10V	18x16x8", Mounting Plate, Vent	\$369.99				
	NB181608-10F	18x16x8", Mounting Plate, Fan	\$379.99				
1	NB181608-10FS	18x16x8", Mounting Plate, Solid State Controlled Fan	\$414.99				
	NB181608-1HF	18x16x8", Mounting Plate, Heater/Fan	\$449.99				
	NB181608-1HFS	18x16x8", Mounting Plate, Solid State Controlled Heater/Fan	\$499.99				
NEW!	NB181608-10FSD	18x16x8", Mounting Plate, Solid State Controlled Dual Fans	\$419.99				
	NB141207-00V	14x12x7", Mounting Plate, Vent	\$159.99				
	NB181608-00V	18x16x8", Mounting Plate, Vent	\$249.99				
	NB141207-00V	14x12x7", Mounting Plate, Vent	\$159.99				
NEW!	NB181608-00V	18x16x8", Mounting Plate, Vent	\$249.99				
	× 2 20 77 . 27	THE REPORT OF THE PARTY OF THE	2.000				
	NB141207-100	14x12x7", Mounting Plate	\$179.99				
	NB141207-1H0	14x12x7", Mounting Plate, Heater	\$199.99				
. 1	NB181608-100	18x16x8", Mounting Plate	\$269.99				
	NB181608-1H0	18x16x8", Mounting Plate, Heater	\$349.99				



- · 120 VAC power
- · Fan and heating options
- · All weather operation
- · Fully customized configurations available
- · Three sizes to choose from



For a complete listing of HyperLink enclosures visit www.hyperlinktech.com





## 120 VAC NEMA Rated ABS Plastic Enclosures

These lightweight yet rugged ABS Plastic equipment enclosures provide protection for all your wired and wireless communications equipment. Each unit features a removable 120 VAC power module with two populated AC outlets. Punch outs are provided for adding another dual AC outlet module if required.

- Compact size
- Weatherproof ABS construction
- Easy to install
- Fully gasketed lockable lid
- 3 rubber cable glands
- Removable 120 VAC power module

	THE W	
NBP141004-100	14x10x4", No Plate	\$44.99
NBP141004-100-4	14x10x4", No Plate, 4-Pack	\$154.99

## Weatherproof Enclosures with Solid State Cooling/Heater Controllers

HyperLink now has available an extensive line of low-cost solid-state temperature controllers for our weatherproof enclosures. These are available for both AC and DC powered NEMA enclosures. The controllers offer improved reliability and temperature setpoint accuracy verses mechanical thermostats. These temperature controllers are available in our 14x12x7 inch and 18x16x8 inch enclosure models.



## **NEW!** 240 VAC Weatherproof **NEMA Rated Enclosures**



HyperLink's NEMA rated 240 VAC weatherproof enclosures include a mounting plate, and are available with a thermostat controlled cooling fan and/or heater. These robust enclosures are well suited for indoor and outdoor applications where 240 VAC power is used such as international locations.

- Stainless steel quick release latches with padlock hasps
- Fully gasketed raised lid and integral mounting flange
- Includes versatile mounting plate
- Supports 240 VAC power
- RoHS compliant

	THE VENEZUE AND THE VALUE OF TH	
NB141207-20F	14x12x7", Mounting Plate, Fan	\$239.99
NB141207-2HF	14x12x7", Mounting Plate, Heater/Fan	\$279.99
NB181608-20F	18x16x8", Mounting Plate, Fan	\$399.99
NB181608-2HF	18x16x8", Mounting Plate, Heater/Fan	\$449.99
	2492VA90299EEEE, 19100	
NB141207-2H0	14x12x7", Mounting Plate, Heater	\$239.99
NB181608-2H0	18x16x8", Mounting Plate, Heater	\$399.99

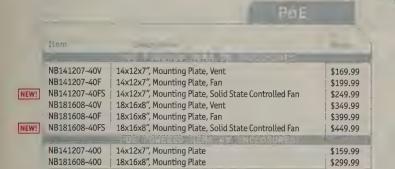
## Weatherproof NEMA Rated Enclosures with PoE Interface

HyperLink offers both NEMA 3R and 4X rated weatherproof enclosures with integrated PoE interfaces. These enclosures are perfect for use with wireless radios and other communications equipment which support PoE applications. All enclosures feature mounting plates designed to work with a multitude of WLAN equipment. Sturdy molded fiberglass reinforced polyester construction provides years of use.

- · NEMA 3R and 4X options
- · Indoor and outdoor use
- · Integrated PoE interface
- · Versatile aluminum mounting plate
- · RoHS compliant



NB141207-400



# 12 VDC Weatherproof NEMA Rated Enclosures

These NEMA 3R and 4X rated enclosures feature 12 VDC power and aluminum mounting plates. Uses for this series of enclosures include 12 VDC solar powered applications, 12 VDC battery back-up applications, corrosive environments and 12 VDC vehicle applications. Some models are available with cooling fan for high temperature applications.

	12 VhC				
Item	Description				
	PERCENTAGE ARCHITECTURAL AND ARCHITECTURAL A	_			
NB141207-50V	14x12x7", Mounting Plate, Vent	\$169.99			
NB141207-50F	14x12x7", Mounting Plate, Fan	\$199.99			
NB181608-50V	18x16x8", Mounting Plate, Vent	\$349.99			
NB181608-50F	18x16x8", Mounting Plate, Fan	\$399.99			
NB141207-500	14x12x7", Mounting Plate	\$149.99			
NB181608-500	18x16x8", Mounting Plate	\$299.99			
-11-60 ATT	ENGLOSURE AGESSORIES	-			
HGX-NPLATE01	Blank Mounting Plate for NB141207 Enclosure	\$22.99			
HGX-NPLATE04	Blank Mounting Plate for NB181608 Enclosure	\$32.99			
HGX-PMT13	Pole Mount Kit, 2" (50.8mm) to 4" (101.6mm) Dia. Poles	\$39.99			
HGX-NMOUNT03	Universal Equipment Shelf	\$16.99			
HGX-NMOUNT04	Dual Cisco 1200AP Mounting Bracket	\$27.99			
NBA-0001	Black H-Cut Hole Plug, 10-Pack	\$6.99			



#### **Universal Pole Mounting Kit:**

This kit is used to mount NB141207 or NB181608 series weatherproof enclosures from 2" (50.8mm) to 4" (101.6mm) dia. poles. For larger diameter poles, slots are provided in the rails for 1/2" (12.7mm) wide worm drive clamps. For poles 1-1/4" (31.7mm) to 2" (50.8mm) dia. the HGX-PMT07 (2 required) can be used with this kit. See Page 32 for more information.

NEW!

# **Amplifiers**



# That sought my eye was the instantal visual form that sought my eye was the instantal visual form of my orders. I also liked the fact that you had installation manuals readily available. All in rill if thought your website was easy to use, You containly have a much more projessional site than many of the folks salting similar terms. The checkaut process was professional and works as professional and works. Say much more. It fuse worked. Rhett Gibson HDI Sahn

# Upgrade Your Operating Range and Performance

# HyperAmp<sup>®</sup> Indoor and Outdoor Wi-Fi Amplifiers

HyperAmp° is the leader in bi-directional Wi-Fi RF amplifiers for wireless LAN. Consisting of a low-noise receive amplifier and a transmit power amplifier, HyperAmp offers significant improvement in operating range and performance. HyperAmp is compatible with spread spectrum wireless gear including IEEE 802.11a/b/g.

Amplifier products are available for export, military, licensed amateur radio (ham radio) and OEM component sales only and as part of complete FCC Certified Systems. Individual amplifier products are not offered for sale in the USA.

- · 100 mW to 25 Watt Amp models available
- 2.4 GHz, 4.9 GHz, 5.8 GHz and 900 MHz support
- · Automatic gain control and fixed-gain models available
- Indoor and outdoor industrial grade versions
- · Low profile "Design-In" Modules available
- Custom configurations available

# DON'T FORGET YOUR FREE GIFT!

Order as little as \$200 and receive the exclusive new HyperLink tool kit. Use these 10 handy tools in a rugged, water resistant nylon carrying case at home or at work. Small enough to fit in tight areas but strong enough to get the job done.

Or, order \$350 and receive the new HyperLink USB 2.0 flash drive. Save up to 128MB of files ranging from Word documents to image files to multimedia. Easy to use plug and play drive.

#### ORDER TODAY!

Mention this offer when you call or order online. Limit one per customer, while supplies last. HyperLink reserves the right to substitute gifts.

Please note that additional documentation may be required to purchase a HyperLink amplifier. In those cases a HyperLink sales associate will contact you to complete your order.

Active Power Control Technology Ensures

Maximum Power Output

# HyperAmp<sup>®</sup> 2.4 GHz 802.11b and 802.11b/g Compatible Bi-Directional Wi-Fi Amplifiers

HyperLink's HyperAmp® 2.4 GHz Wi-Fi amplifier models are available from 100 mW to 25 Watts and feature HyperLink's active power control which monitors the amplifier's output power and automatically adjusts to provide maximum output power regardless of cable length.

- Indoor and outdoor models available
- Active power control
- IEEE 802.11b/g compatible
- Cast aluminum construction
- Transmit and receive LEDs



	P. mile	
HA2401G-100	100 mW 802.11b/q, Includes Power Supply/DC Injector	\$159.9
HA2401G-250	250 mW 802.11b/g, Includes Power Supply/DC Injector	\$179.9
HA2401G-500	500 mW 802.11b/g, Includes Power Supply/DC Injector	\$199.9
HA2401G-1000	1 W 802.11b, Includes Power Supply/DC Injector	\$179.9
HA2401GX-1000	1 W 802.11b/g, Includes Power Supply/DC Injector	\$249.9
HA2402GX-NF	2 W 802.11b/g, Includes Power Supply/DC Injector	\$349.9
HA2401-XL3000	3 W 802.11b, Includes Power Supply/DC Injector	\$349.9
HA2403GT-NF	3 W 802.11b/g, Includes Power Supply/DC Injector	\$999.9
HA2404GT-NF	4 W 802.11b/g, Includes Power Supply/DC Injector	\$1099.9
1A2405GT-NF	5 W 802.11b/g, Includes Power Supply/DC Injector	\$1199.9
HA2406T-NF	6 W 802.11b, Includes Power Supply/DC Injector	\$999.9
HA2408T-NF	8 W 802.11b, Includes Power Supply/DC Injector	\$1299.9
A2408GT-KIT	8 W 802.11b/g, Includes Power Supply/DC Injector/NEMA Enclosure	\$2499.9
HA2410GT-KIT	10 W 802.11b/g, Includes Power Supply/DC Injector/NEMA Enclosure	\$2699.9
A2420T-KIT	20 W 802.11b, Includes Power Supply/DC Injector/NEMA Enclosure	\$2899.9
HA2425T-KIT	25 W 802.11b, Includes Power Supply/DC Injector/NEMA Enclosure	\$3399.9
HA2401GI-100	100 mW 802.11b/g, Includes Power Supply	\$149.9
A2401GI-250	250 mW 802.11b/g, Includes Power Supply	\$169.9
A2401GI-500	500 mW 802.11b/g, Includes Power Supply	\$189.9
IA2401GI-1000	1 W 802.11b, Includes Power Supply	\$169.9
A2401GXI-1000	1 W 802.11b/g, Includes Power Supply	\$229.9
A2401MG-1000	1 W 802.11b Compact, Includes Power Supply	\$149.9
A2402GXI-NF	2 W 802.11b/g, Includes Power Supply	\$329.9
A2401DX-XL3000	3 W 802.11b, Includes Power Supply	\$299.9
IA2403GTI-NF	3 W 802.11b/g, Includes Power Supply	\$899.9
IA2404GTI-NF	4 W 802.11b/g, Includes Power Supply	\$999.9
IA2405GTI-NF	5 W 802.11b/g, Includes Power Supply	\$1099.9
IA2406TI-NF	6 W 802.11b, Includes Power Supply	\$899.9
IA2408TI-NF	8 W 802.11b, Includes Power Supply	\$1199.9
A2408GTI-NF	8 W 802.11b/g, Includes Power Supply	\$1999.9
A2410GTI-NF	10 W 802.11b/q, Includes Power Supply	\$2199.9
IA2420TI-NF	20 W 802.11b, Includes Power Supply	\$2399.9
A2425TI-NF	25 W 802.11b, Includes Power Supply	\$2899.9
INC-FESTE III	25 W 002.11B, Includes Fower Supply	42000.0
A2401GE-250	250 mW 802.11b/g PoE Amplifier	\$219.9
A2401GE-500	500 mW 802.11b/g PoE Amplifier	\$239.9
A2401GXE-1000	1 W 802.11b/g PoE Amplifier	\$279.9
A2401GXE-KIT02	1 W 802.11b/g, Includes Power Supply/PoE Injector	\$299.9
A2401GXE-2000	2 W 802.11b/g PoE Amplifier	\$379.99
1A2401GXE-3000	3 W 802.11b PoE Amplifier	\$349.99

More amplifier info at: www.hyperlinktech.com

**Power Supply** 



#### Tech Talk:

The key requirements of Bi-Directional Amplifiers for use with the new high data rate 802.11a/g/n radios is Automatic Power Control (APC), fast switching speed and good linearity. A 802.11a/g/n radio is very sensitive to signal distortion. Older amplifiers designed for use with 802.11b radios will not function properly with the newer radios. In 2002, HyperLink was the first company to offer a 802.11g Bi-Directional Amplifier with APC. The use of a competitor's fixed gain amplifier with the new rate 802.11a/g/n radios is guaranteed to degrade radio or range performance. HyperLink's APC will hold transmit power constant regardless of data rate. Learn more at hyperlinktech.com.





# NEW! HyperAmp® 2.4 GHz 802.11b and 802.11b/g Wi-Fi Amplifier Modules

HyperLink's HA2401GM series is designed for integration into products such as Access Points and other Wi-Fi equipment. The HA2401GM features the same performance as our full sized amplifiers but in a compact "OEM" module. A PoE Regulator Module is also available for applications requiring Power-over-Ethernet.

- · OEM design ideal for product integration
- · Low profile SMA connectors
- · Transmit and receive LEDs
- · Aluminum mounting plate



	1000000	
		777
HA2401GM-100	100 mW 802.11b/g OEM Module	\$99.99
HA2401GM-250	250 mW 802.11b/g 0EM Module	\$99.99
HA2401GM-500	500 mW 802.11b/g 0EM Module	: \$99.99
HA2401GM-1000	1 W 802.11b OEM Module	\$99.99
The second second	MAN SING IN COME AND	100
BT-CAT5-M1	PoE Regulator Module with Surge Protection	\$43.99



# NEW! HyperAmp<sup>®</sup> 2.4 GHz 802.11b and 802.11b/g Wi-Fi OEM Amplifiers

HyperLink's HA2401SFG series of amplifiers feature low profile SMA Female connectors. This helps reduce the overall height of the amplifier, making it ideal for installations with limited space. Amplifier modules feature cast aluminum construction and are available with or without built-in PoE interface.

- · Low profile SMA connectors
- · Active power control
- · Cast aluminum construction
- · Power supply not included with PoE models

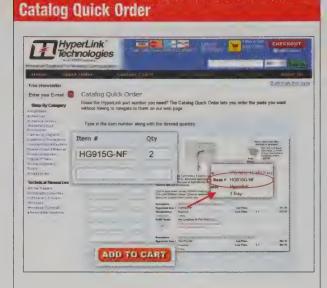
More amplifier info at: www.hyperlinktech.com

HA2401SFGI-100 HA2401SFGI-250 HA2401SFGI-500 HA2401SFGI-1000	100 mW 802.11b/g, SMA Female Connectors, Includes Power Supply 250 mW 802.11b/g, SMA Female Connectors, Includes Power Supply 500 mW 802.11b/g, SMA Female Connectors, Includes Power Supply 1 W 802.11b, SMA Female Connectors, Includes Power Supply	\$149.99 \$169.99 \$189.99 \$189.99
HA2401SFGE-100 HA2401SFGE-250 HA2401SFGE-500 HA2401SFGE-1000	100 mW 802.11b/g, SMA Female Connectors 250 mW 802.11b/g, SMA Female Connectors 500 mW 802.11b/g, SMA Female Connectors 1 W 802.11b, SMA Female Connectors	\$199.99 \$219.99 \$239.99 \$239.99



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# Terms and Conditions

#### Applicability of Terms and Conditions

The Terms and Conditions on this page will govern all sales by L-com, Inc. and HyperLink Technologies, Inc. ("us", "we") unless otherwise agreed to in writing, signed by L-com at its home office in North Andover, Massachusetts, by an authorized agent. Terms and Conditions contained in Buyer's purchase order or any other document that are different from or in addition to these Terms and Conditions are objected to, are rejected, and will not be binding on us. Buyer will be deemed to have agreed to these Terms and Conditions by issuing a purchase order number and upon receipt from us of a written acknowledgement of Buyer's placement of an order. Not-withstanding the foregoing, if we at Buyer's request, commence performance in any way prior to receipt by Buyer of our written acknowledgement, Buyer's acceptance of these Terms and Conditions will be deemed to have occurred on the date such performance commences. If for any reason, our Quotation is deemed an acceptance of an offer made by Buyer, such acceptance is expressly conditioned on Buyer's assent to these Terms and Conditions, which assent will be evidenced by the earlier of Buyer's acceptance of items delivered by us or any other performance by Buyer or by us. We will proceed to sell items only if Buyer assents to these Terms and Conditions.

Products sold by us are not intended for use in life support or other medical devices or systems, life-critical applications, emergency response or safety related systems, or in connection with any product using nuclear power, or in the aircraft, aviation, aeronautical, aerospace, defense or related industries or for uses or in industries not otherwise provided in the product description. Any such use of products sold by us is at Customer's sole risk, and Customer agrees to indemnify and hold us harmless from and against any loss, claims, damages, liability, or cost (including court costs and attorney's fees) resulting from such use or sale by our Customer or any customer of our Customer. Due to the numerous factors affecting the operating range of radio frequency systems we specifically do not guarantee operating range. Customers are urged to contact a local Professional Installer for assistance in designing and installing any Products. We do not provide installation services or design services. Therefore any assistance or advice provided by one of our employees or representatives in selecting equipment is given on a best-effort basis, and should not be relied upon for final decision of product selection by Customer.

Call Monitoring

As a part of a commitment to continuous improvement, we utilize systems to monitor incoming and outgoing telephone calls with customers to ensure quality of service.

#### Confidentiality

Buyer agrees that all information furnished by or obtained from us in connection with the sale of items hereunder will be confidential, and Buyer agrees not to (i) disclose any such information to any other person, or (ii) use such information for any purpose, other than performing this contract.

#### FCC PART 15 AND PART 97 NOTICE

For systems operating within the jurisdiction of the FCC, customer acknowledges that any amplification device it purchases is intended for use only in a transmission system certified under Part 15, Part 97 or other applicable section of the rules and regulations of the Federal Communications

International orders may be subject to any applicable customs duties, VAT, and taxes in the country of destination, all of which are the responsibility of the customer. If this transaction involves an export under Export Administration Regulations, the products exported by us are exported in accordance with the current Export Administration Regulations. Diversion, use, export or re-export contrary to United States law is prohibited. The commodities, technology and/or software sold or distributed under these terms and conditions of sale may not be exported or re-exported to Cuba, Iran, Libya, Sudan, North Korea or Syria or to other countries, entities and persons that are ineligible under United States law to receive United States commodities, technology and/or software.

#### Iurisdiction and Venue

Customer agrees that any legal action brought against us shall be governed by the laws of the State of Massachusetts or State of Florida (respectively) without regard to its conflict of law principles. Customer agrees that the sole jurisdiction and venue for any litigation arising from any purchase shall be an appropriate federal or state court of competent jurisdiction located in Essex County, Massachusetts or Palm Beach County, Florida.

In no event shall we, our Directors, Officers, Employees and Representatives be liable for indirect, special, incidental, consequential, punitive or other damages including but not limited to loss of use, loss of data, loss of business income or profits or breach of implied warranties of any kind arising out of the purchase, use or performance of the Products, whether or not it has been advised of the possibility of such damages. Some localities do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

#### Remedies and Limitations on Remedies

In the event of any material breach of the warranty, we will, at our sole option, credit Buyer's account or repair any defective goods or furnish a replacement part or goods, all subject to Buyer providing written notice of the alleged breach within the time required. The remedies set forth herein shall be the sole and exclusive remedies available to buyer so that our credit of Buyer's account or repair or replacement is a fulfillment of all our obligations. We shall not be liable for any special, consequential, incidental or punitive damages of any kind, nor under any circumstance shall we be liable for damages beyond the price of the goods purchased by Buyer, whether in contract, in tort or under any warranty or other use

Any notice to us required or permitted hereunder will be deemed to have been effectively delivered if in writing and served by personal delivery to us or sent by registered or certified mail with return receipt requested, postage prepaid, to us at the address specified.

Your receipt of an email or other form of order confirmation does not constitute our acceptance of your order or a confirmation of an offer to sell. We reserve the right, without prior notification, to limit the order quantity on any item and/or refuse service to any customer. All orders are subject to review and acceptance by us. Verification of information may be required prior to the acceptance

#### **Pricing and Specifications**

All prices and specifications are subject to change without notice. We reserve the right to change pricing, products and specifications, or discontinue items at our sole discretion for any reason whatsoever including, but not limited to changing market conditions, product discontinuation, component unavailability, manufacturing cost changes and errors in advertisements.

Customers wishing to return products must first obtain a Return Material Authorization (RMA) number from a Customer Service representative. This number must be printed on the outside of the package in order for it to be received and processed. Merchandise must be shipped prepaid. We will determine if credit will be issued upon evaluation of the product and packaging after it's returned to us. Other details concerning returns are as follows:

Items ordered in error must have a Return Material Authorization (RMA) number issued within 30 days of the original order. These parts are eligible for full credit only if the returned products and packaging are in mint and salable condition. A repackaging/restocking charge not to exceed 25% of the sale price may be charged on any products not returned unopened. Under no circumstances will credit be issued after 30 days from date of invoice or for orders exceeding \$500.00 in total value. All freight charges are the responsibility of the customer.

#### Custom Product and Tool Returns

Custom Products and tools are not returnable for any reason unless they are found to be defective.

#### Defective Item Returns

Defective items must have a Return Material Authorization (RMA) number called in prior to

Distributed Item Returns: Products distributed by HyperLink carry the warranty of the respective manufacturer only. After 30 days from invoice all merchandise returns for distributed products must be handled directly with that manufacturer in accordance with their warranty,

Any L-com orders shipped to or picked up in Massachusetts must have 5% sales tax added or provide an "Exempt Use Certificate" when establishing their account. HyperLink adds Sales Tax only to orders that are shipped to addresses in Florida. Customer shall be solely responsible for all sales taxes, or other taxes, on orders shipped to any other state. Resale shipments inside the State of Florida will be charged Sales Tax unless a valid Resale Certificate or Exemption is on file with HyperLink AT THE TIME OF PURCHASE. No credit will be given for sales tax paid on purchases made prior to such exemption being on file with HyperLink. Sales tax is charged on the products as well as on the shipping and handling amount.

Shipping and Processing
All orders are shipped FOB our plant in North Andover, MA or our plant in Boca Raton, FL, respectively. The minimum shipping and processing charge for domestic ground shipments is \$9.50.

Claims for shortages must be reported within 5 business days of receiving the order, otherwise these orders will be deemed as complete.

#### Tolerances and Variations

Except in the particulars specified by Buyer and agreed to in writing by us, the goods being sold to Buyer will be produced in accordance with our standard practices. All goods, however, including those produced to meet an exact specification, will be subject to tolerance and variations consistent with good manufacturing practices in regard to dimension, weight, section, composition, mechanical and electrical properties; to normal variations in surface and internal conditions and in quality; and to deviations from tolerances and variations consistent with practical testing and inspection methods.

We warrant our manufactured products and assemblies for a period of one year from time of purchase. These products are warranted against defects in workmanship or materials under normal use. We cannot warranty our products in case of misuse, acts of God, or consequential damage. Alteration of product cancels all warranties. Under no circumstances will we be responsible for any damage beyond the replacement cost of the defective merchandise. We reserve the right to repair or replace any products that are returned under warranty. Products distributed by us carry the warranty of the respective manufacturer only. Goods manufactured by us to meet Buyer's instructions, specifications or requirements are subject to a plus or minus deviation of five percent (5%) in quantity. This warranty applies to the original purchaser only and is not transferable. This limited warranty covers normal use. The limited warranty does not cover damage incurred during shipment, caused by impact with other objects, dropping, immersion in liquid; service by anyone other than us, use not in accordance with instructions, accident, abuse, misuse, natural disasters such as flood, fire, earthquake or lightning, power surges and problems caused by use of power supplies not supplied by us. Warranty coverage will not apply in the event the serial number or brand-name has been removed, altered or defaced. EXCEPT AND TO THE EXTENT EXPRESSLY SET FORTH ABOVE, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND WE EXPRESSLY DISCLAIM ALL WARRANTIES NOT STATED HEREIN. Some states do not allow the exclusion of implied warranties or limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

We collect the mail address, e-mail address, and phone information of those who communicate we collect the mail address, e-mail address, and phone information of those who communicate with us via written correspondence, e-mail, phone calls, and information volunteered by the customer such as survey information and/or site registration. The information that you give us and information about your order may be combined with other personally identifiable information (such as demographic information and past purchase history) available from our records and other sources. This information will be used to make our future marketing efforts more efficient. This information may also be shared with other marketers to bring you offers of interest. If you prefer that we do not share your name and address with other marketers, please e-mail us a modate@i-com comport write us at the address below Lecon June Atty. Mailroom Manager 45 update@L-com.com or write us at the address below. L-com, Inc. Attn: Mailroom Manager 45 Beechwood Drive North Andover, MA 01845.

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# Wireless Primer

Tear out for handy reference

#### **Wireless Primer**

Wireless communication involves the transport of voice, video and data using Radio Frequency (RF) or Microwaves.

Radio Frequency is defined as a rate of oscillation or frequency within a range of approximately 3kHz to 300 GHz. Typical Radio Frequency applications include AM broadcasting, navigational beacons, wireless networks, and shortwave radio.

Microwaves range from approximately between 300MHz and 300GHz and are typically used for broadcast television, FM broadcasting, aviation communications, radar and satellite links.

Today's business and some Government networks typically utilize the 2.4GHz-5.8GHz RF range which encompasses one or several of the IEEE 802.11a, b and g, n wireless standards. Other popular RF frequencies used today include 900MHz for ISM (Industrial, Scientific and Medical) RFID (Radio Frequency Identification) and 1.9GHz for PCS (Personal Communication Service) applications.

#### **Frequency Chart**

Name	Symbol	Range	Wavelength
Extremely low frequency	ELF	3 to 30 Hz	10,000 km to 100,000 km
Super low frequency	SLF	30 to 300 Hz	1,000 km to 10,000 km
Ultra low frequency	ULF	300 Hz to 3 kHz	100 to 1000 km
Very low frequency	VLF	3 to 30 kHz	10 to 100 km
Low frequency	LF or LW	30 to 300 kHz	1 to 10 km
Medium frequency	MF or MW	300 to 3000 kHz	100 m to 1 km
High frequency	HF or SW	3 to 30 MHz	10 to 100 m
Very high frequency	VHF	30 to 300 MHz	1 to 10 m
Ultra high frequency	UHF	300 to 3000 MHz	10 to 100 cm
Super high frequency	SHF	3 to 30 GHz	1 to 10 cm
Extremely high frequency	EHF	30 to 300 GHz	1 to 10 mm

Complete Wireless Solutions

## **Indoor (in building) RF Wireless Networks**

When dealing with the installation and expansion of indoor wireless networks several factors must be considered. Most manufacturers of wireless access points and routers indicate a typical range that their equipment can provide. Usually these range estimates require line of sight which means you will need a clear unobstructed view of the antenna from the remote point in the link. In most cases there will be obstacles

present in an indoor installation that could affect performance. Signals generally will not penetrate metal or concrete walls. Other factors that will reduce range and affect coverage area include metal studs in walls, concrete fiberboard walls, aluminum siding, foil-backed insulation in the walls or under the siding, pipes and electrical wiring, furniture and sources of interference. Other sources include other wireless equipment, cordless phones, microwave ovens, radio transmitters and other electrical equipment. Due to the increased gain, installing range extender antennas in the presence of interference could actually yield equal or worse range.

In wireless transmissions, reflections (when wireless signals "bounce" off objects) and multipath (when wireless signals travel in multiple paths arriving at the receiver at different times) are as important as signal strength in determining the success of an installation. A signal will also exhibit peaks and nulls in its amplitude and alteration of its polarization (vertical or horizontal) when propagating through walls, ceilings and reflecting off metallic objects.

Wireless radios have special hardware and software to deal with multipath and signal level nulls, but if the antenna is in a poor location, the radio will not be able to communicate. When trying to get the best performance in a location with a lot of barriers or reflections, it is important to be able to move the antenna in all three axes in order to minimize the effects of multipath and optimize the signal strength.

#### **Outdoor RF Wireless Networks**

To Place an Order Call: 877-485-8060

Outdoor RF wireless network experience the same factors such as reflections and multipath as Indoor networks. For outdoor wireless installations clear line of sight is optimal. Trees and leaves are obstructions to 802.11 frequencies so they will partially or entirely block the signal if not cleared.

Before deploying any wireless network a site survey is recommended. The site survey typically entails installing an access point at each location where user groups are located and then monitoring the wireless signal strength by walking varying distances away from the access points using a laptop with site survey software. The result will show you where out may need more access points to provide sufficient coverage or where you may need to move an access point for optimal wireless connectivity.

Get more info at: www.hyperlinktech.com



## Glossary

## **Post for Easy Reference**

**Antenna:** That part of a radio communications system intended to radiate and/or collect radio frequency energy.

Antenna Gain: A relative measure of an antennas ability to direct or concentrate radio frequency energy in a particular direction or pattern. Typically measured in dBi or dBd.

Attenuation: The loss or weakening of a signal through a transmission component or signal path. Usually refers to loss in signal amplitude or signal power, and is typically measured in decibels (dB).

**Attenuator:** A component that reduces the magnitude of current, voltage, or power of a signal in transmission between points. The input and output Impedance of the Attenuator normally matches the system.

**Band Pass Filter:** A signal filter designed to pass a continuous range of frequencies, while attenuating frequencies that are both above and below that range. Also called a BPF.

**Bandwidth:** The term Bandwidth must be used in the proper context. The Bandwidth of a Filter is the difference between the highest and lowest frequencies of a band expressed in Hertz. The Bandwidth of a system or channel is the volume of information per unit of time that a transmission medium can handle.

**Bias-T:** A Bias-T is a type of Diplexer that is installed inline with a transmission cable enabling both DC power and RF signals to travel through the same cable. The Bias-T is normally used to power remote equipment.

**Bi-Directional Amplifier:** A device that amplifies an RF signal in both Forward (Transmit) and Reverse (Receive) directions. Also called a Bilateral Amplifier. Two basic modes of operation exist, Half Duplex or Full Duplex. The Forward and Reverse frequencies of operation can be the same or different.

**Bridge:** Typically used to describe a component of a communications network that connects one network to another. For example a Wireless, Wired or Fiber Bridge can be used to connect two networks together.

**Bulkhead Connector:** A connector type that is designed for mounting through a panel or wall.

**Cavity Filter:** A popular type of RF filter that employs one or more resonant cavities to filter out unwanted frequencies.

**Coaxial Cable, Coax:** A concentric two-conductor cable in which one conductor surrounds the other, separated by an insulator or dielectric.

Compression: In RF amplification, an amplifier is said to be "in compression" (distorting) when the output is no longer a linear representation of the input signal, typically at the operational limits of the amplifier.

CW: Continuous wave. An analog signal that is always "on" (100% duty cycle).

**dBd:** Decibels relative to a dipole. (See also Decibel and Dipole)

**dBi:** Decibels relative to an isotrope. (See also Decibel and Isotrope)

**dBm**: Decibels (dBi) relative to one milliwatt. (See also Decibel)

dBW: Decibels (dBi) relative to one Watt. (See also Decibel)

**Decibel** (dB): A logarithmic representation of magnitude relationships commonly used in radio and sound measurement. A Decibel is 1/10 of a Bel.

sound measurement. A Decibel is 1/10 of a Bel. **Diplexer:** A device that combines two signals onto a single transmission line. In general the two signals

a single transmission line. In general the two signals operate are at different frequencies.

Diversity: A transmission or reception technique used to improve system performance via switching

used to improve system performance via switching amongst multiple antennas. Two methods are generally used, Polarization Diversity or Spatial Diversity. This technique is useful for operating in areas susceptible to the affects of multi-path interference.

**Duty Cycle:** A percentage of the time "on" (transmitting) versus the time "off" (not transmitting).

**Effective Isotropic Radiated Power (EIRP):** A measure of a signal's absolute power in a particular direction (see ERP), but relative to an Isotrope rather than a Dipole.

Fade Margin: The loss in signal along a signal path,

measured in dB, caused by environmental factors such as terrain, atmospheric conditions, etc.

**Federal Communications Commission (FCC):** A board of commissioners, appointed by the President, having the power to regulate wire and radio telecommunications in the United States.

**Feed horn:** That part of a parabolic or grid reflector antenna that contains the driven element.

Filter: A device used to block or reduce signals at certain frequencies while allowing others to pass through.

**Full-Duplex Transmission:** A channel that allows transmission in two directions at the same time. For example, cellular telephone service or an Ethernet based Network is typically full duplex.

**Gain:** The relative increase in power or magnitude of a signal typically measured in decibels (dB).

**Gas Tube Arrestor:** A type of lightening arrestor that employs a Gas Discharge Tube (GDT) as the protective device. A GDT consists of a sealed module containing two or more metallic elements and a mixture of gasses that conduct under high voltages.

**Grid Antenna:** A type of antenna that employs an openframe grid as a reflector, rather than a solid one. The grid spacing is sufficiently small to ensure that waves of the desired frequency cannot pass through, and are hence reflected back toward the driven element.

**Ground:** A connection between a device or circuit and the earth or some device serving as the earth.

**Half-Duplex Transmission:** A channel that allows transmission in only one direction at a time, switching back and forth between transmit and receive. Most spread spectrum wireless LAN equipment is Half-Duplex.

**High-Pass Filter:** A signal filter that passes all frequencies above a certain frequency, and attenuates all lower frequencies.

**Impedance:** A measure of the total opposition to current flow in an alternating current circuit, made up of two components, ohmic resistance and reactance, and usually represented in complex notation as Z = R + iX, where R is the ohmic resistance and X is the reactance.

**Insertion Loss:** The loss in signal strength due to the insertion of a device in series with a signal path. Typically measured over the intended operating frequency range of the device and expressed in dB.

**Isotropic:** A theoretical "isotrope" is a single point in free space that radiates energy equally in every direction similar to the Sun.

**Lightning Arrester:** A device whose purpose is to eliminate transients on a conductor that are induced by nearby lightning activity.

Low-Pass Filter: A signal filter that passes all frequencies below a certain frequency and attenuates all higher frequencies.

**Low-Noise Amplifier (LNA):** A low noise, typically small-signal amplifier for receive applications.

Metal Oxide Varistor (MOV): A type of surge protector arrester that offers high resistance to low voltages and low resistance to high voltages. Placing a MOV from a conductor to ground causes high voltage spikes to short-circuit to ground.

**Multipath Interference:** Signal reflections and delayed signal images that interfere with the desired un-delayed and larger desired signal. Causes picture ghosting for over the air analog TV and errors in digital transmission systems.

**Multi-Strike Capability:** The ability for a device to survive and work again after a surge event.

Omni-Directional Antenna: An antenna that radiates or receives RF energy in a 360 degree pattern about an axis.

**Oscillator:** A device that produces a "vibration" or variation in level at a given frequency.

Parabolic Dish Antenna: An antenna that utilizes a dish-like reflector to focus radio energy of a specific range of frequencies on a tuned element.

**Parabolic Grid Antenna:** An antenna that employs an open-frame grid rather than a solid dish reflector. (See also Grid Antenna)

Part 15 Rules (FCC): That part of the FCC regulations which regulates unlicensed use of ISM bands for wireless networking and other uses.

**Patch Antenna:** Typically a flat rectangular or round antenna having a directional radiation pattern.

Path Budget: A mathematical model of a wireless communications link that accounts for a wide variety of factors that affect operating range and performance. Sometimes called a "link" budget.

**Path Loss:** The weakening of a signal over its path of travel due to various factors like terrain, obstructions and environmental conditions. Measured in dB.

**Point-to-Point:** A communications channel that runs from one point to another.

**Point-to-Multipoint:** A communications channel that runs from one point to several other points.

**Power Meter:** A device used to measure radio frequency energy in Watts into a standard Impedance like 50 Ohms

**Propagation:** The travel of a signal through a medium such as air or free space.

Radio Frequency (RF): Typically a frequency from 20 kHz to 100 GHZ. RF is usually referred to whenever a signal is radiated through an enclosed medium like a transmission cable or air.

**Radio Wave:** A combination of electric and magnetic fields varying at a radio frequency and traveling through space at the speed of light.

Receive Gain: A measure of receive signal boost contributed by an amplifier or antenna system, and typically measured in dB.

Receiver Sensitivity: A measure of a receiver's ability to differentiate a desired signal from the background noise.

**Safety Ground:** The local earth ground. The earth ground which grounds the neutral return. A system may be earth grounded as many times as needed.

**Signal-To-Noise Ratio (SNR):** A measure of the magnitude of a desired signal relative to the magnitude of an undesired signal or noise.

**Spectrum Analyzer:** An instrument that can be used to view signal amplitude across a wide range of frequencies.

**Splitter/Combiner:** A transmission component which divides or sums power between two or more ports.

**Throughput:** A measure of the volume of information which can be transmitted (typically bits per second) through a given communications system. See Randwidth

**Voltage Standing Wave Ratio (VSWR):** VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. Perfect = 1.0:1, Good < 2.0:1

**Wavelength:** The distance that an electromagnetic wave travels in one complete cycle.

Wind Loading: A characteristic of an antenna or other structure that is a measure of the forces applied to the structure due to wind.

Wireless: A new all-encompassing "buzzword" which describes what used to be called "radio", but which typically also implies some of the newer cellular or digital radio technologies as well.

Wireless "Ethernet": A misnomer in actuality since "Ethernet" is a wired system by definition, but appropriate nevertheless to describe CSMA/CA wireless LAN's—since their operation has a great deal in common and they are typically integrated easily.

Wireless Local Area Network (WLAN): A short-range computer-to-computer wireless data communications network.

Yagi Antenna: A narrow band directional antenna named for one of its inventors, which consists of a boom supporting a series of metallic elements or rods.

## HyperAmp<sup>®</sup> 5.8 GHz Bi-Directional Amplifiers

As a leader in the field of amplifier design and development, HyperLink offers several versions of its 5.8 GHz amplifiers for both indoor and outdoor use. Consisting of a low-noise receive amplifier and a transmit power amplifier, HyperAmp offers significant improvement in operating range and performance. Custom configurations are available, contact HyperLink today!

- Indoor and outdoor models available
- · 5.8 GHz ISM, UNII Applications
- · IEEE 802.11a
- Military, HAM and OEM 3 to 5 Watt versions
- · Aluminum construction



#### Each Outdoor Kit Includes:

- · HyperAmp® Remote Outdoor Amplifier
- · DC Power Injector with Lightning Protection
- International Power Supply (110/220V)
- · Mast Mounting Hardware

#### **Each Indoor Kit Includes:**

- · HyperAmp<sup>®</sup> Indoor Amplifier
- · International Power Supply (110/220V)

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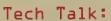
	Carrie and			TO 20, 2 45.70 F
	HA5801-500	A	500 mW 802.11a, Includes Power Supply/DC Injector	\$329.99
,	HA5803	В	3 W 802.11a, Includes Power Supply/DC Injector	\$1299.99
ì	HA5805	В	5 W 802.11a, Includes Power Supply/DC Injector	\$1499.99
			CONTRACTOR OF STREET	
	HA5801I-500	. A	500 mW 802.11a, Includes Power Supply	\$299.99
п	HA5803I	В	3 W 802.11a, Includes Power Supply	\$1249.99
I	HA5805I	В	5 W 802.11a, Includes Power Supply	\$1449.99





## 7 We Promise

HyperLink will ship in stock products the same day on all orders received before 4:00 PM EST.



Bi-Directional Amplifiers are used to extend the range of a Wi-Fi system. HyperLink is the originator of Bi-Directional amplifiers for the Wi-Fi market having offered its first model for 900 MHz in 1994. HyperLink offers the highest performance and most powerful line of Bi-Directional amplifiers in the industry today. Models offering power ratings of 100 mW through 25 Watts, for use in the 900 MHz, 2.4 and 5 GHz bands are available. Our amplifiers are available in outdoor and indoor styles as well as NEMA enclosure mounted versions. Learn more at hyperlinktech.com.



# 900 MHz Bi-Directional RF Amplifiers

HyperAmp® HA900 series RF amplifiers are compatible with 900 MHz wireless LAN equipment including the new generation 2.75 Mbit CCK (Complementary Code Keying) spread spectrum radios. HyperLink's Active Power Control circuit automatically adjusts the amplifier's gain to provide a constant output power regardless of cable length.

The HyperAmp® HA900 series improves range by delivering full transmit power and receive gain directly at the antenna where it is most effective. This gain compensates for cable losses and actually increases the receive sensitivity of most wireless LAN radios. The unit can be configured to deliver the full transmit power with as little as 1 mW of input power, permitting cable runs of several hundred feet with no degradation in operating range.

- · Transmit and receive LEDs
- · DC injector included with outdoor version
- · Switching Power Supply included
- · Integral mast mount with outdoor version
- · Integral mounting feet with indoor version

#### Each Outdoor Kit Includes:

- · HyperAmp® Remote Outdoor Amplifier
- · DC Power Injector with Lightning Protection
- · International Power Supply (110/220V)
- · Mast Mounting Hardware

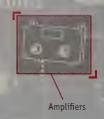
#### Each Indoor Kit Includes:

- · HyperAmp® Indoor Amplifier
- · International Power Supply



	HA900-APC500	Α	500 mW Includes Power Supply/DC Injector	\$349.95
	HA901-APC	Α	1 W Includes Power Supply/DC Injector	\$379.99
	HA903-APC	Α	3 W Includes Power Supply/DC Injector	\$429.99
	HA905-APC	В	5 W Includes Power Supply/DC Injector	\$499.99
NEW!	HA905-DM	В	5 W OFDM Compatible Includes Power Supply/DC Injector	\$699.99
	HA910-APC	В	10 W Includes Power Supply/DC Injector	\$699.99
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	HA900I-APC500	Α	500 mW Includes Power Supply	\$299.95
	HA901I-APC	Α	1 W Includes Power Supply	\$329.99
	HA903I-APC	Α	3 W Includes Power Supply	\$379.99
	HA905I-APC	В	5 W Includes Power Supply	\$449.99
NEW!	HA905I-DM	В	5 W OFDM Compatible, Includes Power Supply	\$649.99
	HA910I-APC	В	10 W Includes Power Supply	\$649.99

More amplifier info at: www.hyperlinktech.com



# 2.4 GHz 802.11b/g Compatible Ultra High Q 4-Pole and 8-Pole Wi-Fi Bandpass Channel Filters

HyperLink's indoor and outdoor 2.4 GHz Ultra-High Q Wi-Fi channel filters are ideal for co-located equipment installations. Available in seven versions for channels 1, 3, 6, 9, 11, 13 and 14, they provide excellent adjacent channel rejection. By reducing interference from both inside and outside the band, improved performance of co-located equipment can be achieved. These bandpass filters are Bi-Directional, so either end can be connected to the antenna. These filters are designed to be installed indoors or in weather-resistant enclosures. Both 4-Pole and 8-Pole models are offered.

## **2.4/4.9/5 GHz Diplexers**

HyperLink's 2.4/5 GHz Diplexers are designed to split 2.4 GHz and 5 GHz from a single radio feed to separate 2.4 GHz and 5 GHz antennas. They can also be used to combine those frequencies into a single cable. HyperLink Diplexers are available for indoor and outdoor applications and feature N-Female connectors.

- Reduces interference and improves performance
- · Ideal for high data rate 802.11b/g
- · Ultra low insertion loss
- · Ultra-high quality microwave cavity filter
- · Rugged aluminum construction



NEV



Item	Description	Price
BPF24-401	4-Pole, Indoor, Channel 1	\$59.99
BPF24-403	4-Pole, Indoor, Channel 3	\$79.99
BPF24-406	4-Pole, Indoor, Channel 6	\$79.99
BPF24-409	4-Pole, Indoor, Channel 9	\$79.99
BPF24-411	4-Pole, Indoor, Channel 11	\$79.99
BPF24-801	8-Pole, Indoor, Channel 1	\$99.99
BPF24-801A	8-Pole, Outdoor, Channel 1	\$149.99
BPF24-803	8-Pole, Indoor, Channel 3	\$99.99
BPF24-806	8-Pole, Indoor, Channel 6	\$99.99
BPF24-806A	8-Pole, Outdoor, Channel 6	\$149.99
BPF24-809	8-Pole, Indoor, Channel 9	\$99.99
BPF24-809A	8-Pole, Outdoor, Channel 9	\$99.99
BPF24-811	8-Pole, Indoor, Channel 11	\$99.99
BPF24-811A	8-Pole, Outdoor, Channel 11	\$149.99
BPF24-813	8-Pole, Indoor, Channel 13	\$99.99
BPF24~813A	8-Pole, Outdoor, Channel 13	\$99.99
BPF24-814	8-Pole, Indoor, Channel 14	\$49.99
BPF2400	4-Pole, Indoor, Full Band	\$99.99
BPF2400A	4-Pole, Outdoor, Full Band	\$149.99
DP245-NF	2.4/5.8 GHz, Outdoor, NF Connectors	\$49.99
DP2458-NF	2.4/5.8 GHz, Indoor, NF Connectors	\$139.99
HGX-PMT14	Filter Mast MNT Kit, 1-1/4in to 2in Diameter	\$12.99
HGX-AMOUNT01	Diplexor Mast MNT Kit, 1-1/4in to 2in Diameter	\$9.99
HGX-AMOUNT02	Diplexor Wall/Enclosure MNT Kit	\$9.99

# Signal Filters



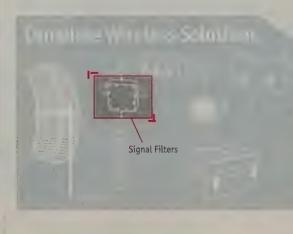
Ultra low insertion loss

More signal filters at: www.hyperlinktech.com



#### Tech Talk:

HyperLink offers two basic types of Band Pass Filters, Channel and Full Band. A Channel filter only allows signals within its pass band into the radio and rejects out of channel interferers. A Full Band Filter allows signals within the full 802.11 pass band into the radio and rejects out of band interferers like the 1.9 GHz PCS band. HyperLink offers a full line of Band Pass Filters for 900 MHz, 2.4 and 5 GHz radios that feature low insertion loss and superior rejection out of band signals. Learn more at hyperlinktech.com.





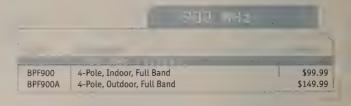
**Mounting:** For mounting 1-1/4'' (31.7mm) to 2'' (51mm) dia. masts. This kit contains an aluminum mounting bracket, zinc plated steel 1/4-20 x 2" U-Bolt with serrated flange nuts and filter mounting hardware. See Page 32 for more mounting options.

# (4) Ideal for minimizing **BPF5800A** adjacent channel interference More signal filters at: www.hyperlinktech.com 26

## 900 MHz Full Band Ultra High Q 4-Pole **Indoor and Outdoor Bandpass Filters**

The HyperLink 900 MHz 4-Pole Ultra-High Q full band filters are designed for full band applications. By reducing interference outside the 915 MHz band such as from cellular and paging signals, improved performance in noisy environments can be achieved. The BPF900 series filters are ideal for use with 902-928 MHz ISM band applications as well as 900 MHz RFID applications. Both filters feature rugged aluminum construction. The BPF900 is designed for indoor use. For outdoor applications choose the BPF900A.

- Ultra high quality microwave cavity filter
- Ultra low insertion loss
- Reduce interference and improve performance
- Industrial grade
- Rugged aluminum construction
- Provides lightning protection (DC Short)
- Ideal for 902-928 MHz ISM band applications
- Compact size
- N-Female connectors
- Optional mast mounting kit available for outdoor model



## 4.9 GHz and 5.8 GHz Full Band Ultra High Q 4-Pole Bandpass Filters

The HyperLink 4.9 GHz and 5.8 GHz 4-Pole Ultra High Q full band channel filters are ideal for co-located equipment installations. These filters are designed for full band applications. By reducing interference outside the respective bands (4900 MHz or 5800 MHz depending on model), improved performance on the co-located equipment can be achieved. These bandpass filters are wide enough to pass high date rate signals without degradation. Both filters feature rugged aluminum weatherproof construction and can be used indoors or outdoors.

- Ultra high quality microwave cavity filter
- Ultra low insertion loss
- Reduce interference and improve performance
- Industrial grade
- Rugged aluminum weatherproof construction for outdoor or indoor use
- Provides lightning protection (DC Short)
- Ideal for high data rate wireless LAN applications
- Ideal for minimizing adjacent channel interference
- Optional mast mounting kit available

	4:4 GHZ AND 5:	2 100
		210
BPF4900A	4-Pole, Outdoor, Full Band	\$149.99
BPF5800A	4-Pole, Outdoor, Full Band	\$149.99

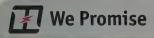
# Signal Splitters

## HyperGain® 800 MHz, 900 MHz, 2.4 GHz, 3.5 GHz and 5.8 GHz Signal Splitters/Signal Combiners

HyperLink's signal splitters/signal combiners are used for connecting more than one antenna to a single radio. They feature weatherproof construction and can be installed indoors or outdoors. These flexible splitters can be used with amplified systems since they will pass DC power to all ports. HyperGain® WLAN signal splitters/combiners are available in 2-way, 3-way and 4-way models and are available with N-Female and RP-TNC jack connectors.

- Connect multiple antennas to a single radio
- · 2-way, 3-way and 4-way models
- RoHS compliant
- Cast aluminum construction
- · Weatherproof for indoor or outdoor use
- DC power passes to all ports

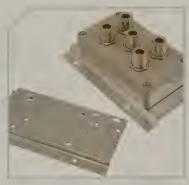




HyperLink will ship in stock products the same day on all orders received before 4:00 PM EST.



**HGX-AMOUNT01** Mast Mounting Kit



**HGX-AMOUNTO2** Wall Mounting Kit

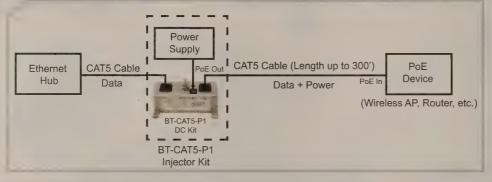
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SCW02N	2-Way, NF Connectors	\$39.99
SCW03N	3-Way, NF Connectors	\$59.99
SC902N	2-Way, NF Connectors	\$49.99
SC903N	3-Way, NF Connectors	\$59.99
Add .		
SC2402N	2-Way, NF Connectors	\$39.99
SC2402RTM	2-Way, RP-TNC Connectors	\$49.99
SC2403N	3-Way, NF Connectors	\$59.99
SC2403RTM	3-Way, RP-TNC Connectors	\$69.99
SC2404N	4-Way, NF Connectors	\$69.99
SC3502N	2-Way, NF Connectors	\$39.99
SC3504N	4-Way, NF Connectors	\$69.99
SC5802N	2-Way, NF Connectors	\$99.99
SC5804N	4-Way, NF Connectors	\$159.99
ANM-TERM1	N-Male 50-Ohm Terminator, 0-6 GHz	\$7.99
HGX-AMOUNT01	Splitter Mast MNT Kit, 1-1/4in to 2in Diameter	\$9.99
HGX-AMOUNT02	Splitter Wall/Enclosure MNT Kit	\$9.99



# Power-over-Ethernet





BT-CAT5-P1 PoE Injector Application – Visit us online at www.hyperlinktech.com for complete details

# Power-over-Ethernet (PoE) 12 and 48 VDC Injectors

HyperLink offers a wide range of PoE injector styles including reverse polarity, 12 VDC and 48 VDC models. These PoE injectors can be used to connect PoE compliant devices such as access points, IP phones or wireless routers and supply data as well as power over a single CAT5 cable.

Power-over-Ethernet eliminates the need for an AC outlet at each end device location. Only a single Ethernet cable is run to each device such as an access point instead of separate power and data cables. The injector is typically installed near the Ethernet switch.

- Wireless LAN access points and bridges
- Wireless LAN Wi-Fi amplifiers and amplified antennas
- VoIP (Voice over Internet Protocol) telephones
- · IP surveillance cameras
- · Bluetooth® access points
- · Web cameras

More PoE products at: www.hyperlinktech.com

## Tech Talk:

The main advantage of PoE for the Wi-Fi industry is the installation of remote or outside equipment without having to connect to AC power. Equipment can be installed without the need for an Electrician. The use of PoE also eliminates the AC/DC connection as a path for surges into the equipment. In a wired network with a lot of remote nodes, PoE based switches or routers eliminate the need for large numbers of AC power supplies or the installation of new AC outlets at the remote nodes. Learn more at hyperlinktech.com.

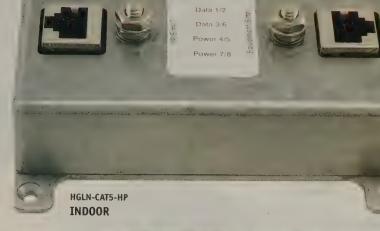
48 VDC, 20 W, Dual RJ45, Includes Power Cord	\$39.99
48 VDC, 60 W, Dual RJ45, Requires PSCORD3	\$74.99
OCCUPATION OF THE PARTY OF THE	
5-48 VDC, 1 Port	\$29.99
48 VDC, 1 Port, Includes 48VDC/48W Supply	\$74.99
5-48 VDC, 1 Port, Reverse Polarity	\$29.99
48 VDC, 1 Port, Reverse Polarity, Includes 48VDC/48W Supply	\$79.99
12 VDC, 1 Port, Regulated	\$59.99
	a grandige operating along
3 Conductor Plug, USA/AC Power Cord, 1ft	\$2.99
CAT5 Ethernet Patch Cable, 1ft	\$2.29
CAT5e Ethernet Patch Cable, 5ft	\$4.99
CATS Poe Conversion Cable 2ft	\$14.99
	48 VDC, 60 W, Dual RJ45, Requires PSCORD3  5-48 VDC, 1 Port 48 VDC, 1 Port, Includes 48VDC/48W Supply 5-48 VDC, 1 Port, Reverse Polarity 48 VDC, 1 Port, Reverse Polarity, Includes 48VDC/48W Supply 12 VDC, 1 Port, Regulated  3 Conductor Plug, USA/AC Power Cord, 1ft CAT5 Ethernet Patch Cable, 1ft

# CAT5 and CAT6 Data Line Lightning and Surge Protectors

HyperLink's data line lightning and surge protectors are designed to protect CAT5 10/100 Base-T Ethernet systems as well as CAT6 10/100/1000 Base-T systems (models AL-CAT6W and HGLN-CAT6 only). Indoor and outdoor versions are available as well as compact weather resistant models and high-power industrial grade three-stage protectors. Many of these models are also Power-over-Ethernet (PoE) compatible. For detailed specifications and capabilities please visit us at www.hyperlinktech.com.

- · Use with APs, routers, IP cameras
- · Three-stage protection
- · Failsafe architecture
- · 10/100 Base-T CAT5 protection
- 10/100/1000 Base-T CAT6 protection
- · RoHS compliant

Protect 10/100 Ethernet networks



Lightning Protectors

HGLN-CAT5-2	Indoor, 10/100 Base-T, Shielded, RJ45	\$37.9
AL-CAT5VW	Weather Resistant, 10/100 Base-T, RJ45	\$39.9
AL-CAT5W	Weatherproof, 10/100 Base-T, RJ45 and Screw Terminal	\$44.9
AL-CAT5PW	Weather Resistant, 10/100 Base-T, Punch Down Block	\$39.9
AL-CAT5JW	Weather Resistant, 10/100 Base-T, RJ45	\$39.9
AL-CAT5SW	Weather Resistant, 10/100 Base-T, Screw Terminal	\$39.9
HGLN-CAT5-HP	Indoor, 10/100 Base-T, 3-Stage, RJ45	\$59.9
AL-CAT5HPJW	Weather Resistant, 10/100 Base-T, 3-Stage, RJ45	\$59.9
AL-CAT5HPW	Weatherproof, 10/100 Base-T, 3-Stage, RJ45 and Terminal Block	\$69.9
AL-CAT5HPW-4	Weatherproof, 10/100 Base-T, 3-Stage, Multi-Port, RJ45 and Terminal Block	\$179.9
AL-CAT5EW	Weatherproof, 10/100 Base-T, Screw Terminal	\$49.9
Contract of the same	PLUS LINE OF THE PROPERTY OF	EL ALDO
HGLN-CAT6	Indoor, 10/100/1000 Base-T, Shielded, RJ45	\$39.9
AL-CAT6W	Weatherproof, 10/100/1000 Base-T, Screw Terminal	\$59.9
AL-CAT6JW	Weather Resistant, 10/100/1000 Base-T, RJ45	\$39.9
AL-CAT6PW	Weather Resistant, 10/100/1000 Base-T, Punch Down Block	\$39.9
MANUAL CON		Of Matt
HGLN-DSL	Indoor, Phone/DSL, 3-Stage, RJ11	\$49.9
HGLN-D2-DT	Indoor, Phone/DSL, 3-Stage, Screw Terminal	\$49.9
AL-DSLJW	Weather Resistant, Phone/DSL, 3-Stage, RJ11	\$49.9
AL-DSLSW	Weather Resistant, Phone/DSL, 3-Stage, Screw Terminal	\$49.99
HGLN-DC-12	Indoor, 12Vdc Power Line, Screw Terminal	\$37.9
HGLN-D2-05	Indoor, RS-422/485, RTDs, T1/E1/J1, 3-Stage, Screw Terminal	\$49.9
HGLN-D2-12	Indoor, RS-232, Control Lines, Sensors, 3-Stage, Scréw Terminal	\$49.9
AL-D2W-05	Weather Resistant, RS-422/485, RTDs, T1/E1/J1, 3-Stage, Screw Terminal	\$49.99
AL-D2W-12	Weather Resistant, RS-232, Control Lines, Sensors, 3-Stage, Screw Terminal	\$49.99
AL-D2VW-2	Weather Resistant, DSL, 230V Phone, ISDN, T1/E1/J1, Screw Terminal	\$19.99
AL-D2VW-9	Weather Resistant, 90V Dedicated Line w/o Ring Voltage, Screw Terminal	\$19.99
AL-D4W-DT	Weather Resistant, Phone/DSL, T1/E1/J1, Screw Terminal	\$39.99
AL-D4W-05	Weather Resistant, RS-422/485, Screw Terminal	\$39.99
AL-D8W-12	Weather Resistant, RS-232, Screw Terminal	\$39.99
AL-D2-AW	Weatherproof, 4/8 Ohm Audio Systems, Screw Terminal	\$49.99
AL-D2-PAW	Weatherproof, 70.7/100V Public Address Systems, Screw Terminal	\$49.99
AL-DOVW-2	230V Suppression Module for AL-D2VW	\$5.99
AL-DOVW-9	90V Suppression Module for AL-D2VW	\$5.99
CA-CAT5-01	CATS Ethernet Patch Cable, 1ft	\$2.29
	CAT5e Ethernet Patch Cable, 5ft	\$4.99





# Telephone/DSL/Audio Lightning and Surge Protectors

Telephone and control lines also can benefit from the added protection of HyperLink's lightning and surge protectors. We offer a broad range of indoor and outdoor protectors for use with telephone and DSL lines, T1/E1/J1 lines, RS-422 and RS-485 lines, 12 VDC power lines and RS-232 lines.

Audio systems also need protection from lightning strike electrical surges. HyperLink's audio systems protectors are designed to do just that. Our AL-D2-AW protector is designed for use with typical home audio systems. For protection of commercial applications such as office complexes and outdoor public areas (e.g. bus/train stations, parks) which typically use 70.7/100 volt public address systems, we recommend the AL-D2-PAW protector.

# Protect Valuable Communications Equipment



# HyperLink 0-3 GHz and 0-6 GHz Coaxial Lightning and Surge Protectors

HyperLink's coaxial lightning and surge protectors are available in a wide selection of styles. Gas discharge tube protectors are available for 0-3 GHz and 0-6 GHz operation and feature easily replaced gas tube elements, multi-strike capability and bi-directional protection. By utilizing these easy to install lightning and surge protectors, you can protect valuable communications equipment from power surges and/or lightning strikes.

These units are ideal for IEEE 802.11b/g wireless LAN applications, as well as ISM, MMDS, Cellular, and PCS applications. Since these protectors will pass DC, they are suitable for applications where DC is carried through the coaxial cable, such as remote amplifiers and low-noise amplifiers.

- · Protect valuable communications equipment
- · Multi-strike capability
- · Bi-Directional protection
- · Easily replaced gas tube element
- RoHS compliant
- Protectors will pass DC



#### Tech Talk:

The use of lightning protectors offers enhanced system reliability and protection for expensive equipment from lightning or surges originating on the power line. Surges can be generated by lightning, static buildup or equipment on the AC mains such as AC compressors. A typical equipment installation provides multiple paths for a surge to enter and damage sensitive equipment. A surge can propagate down an RF antenna cable or up an Ethernet cable or AC/DC power connection. The surge can generate both Common and Differential Mode voltages that can damage equipment via these interfaces. HyperLink's lightning protectors provide protection from both Common Mode and Differential Mode surge events, Learn more at hyperlinktech.com.

NEW!	AL-NFNFB-9 AL-NFNFBHP-9 AL-NMNFB-9 AL-BMBFB-9 AL-FFFF-9 AL-RTPRTJB-9 AL-TMTFB-9 AL-UFUFB-6	N-Female to N-Female Bulkhead, 90V N-Female to N-Female Bulkhead, Indoor, High Power, 90V N-Male to N-Female Bulkhead, 90V BNC Male to BNC Female Bulkhead, 90V F-Female to F-Female, 90V RP-BNC Plug to RP-BNC Jack Bulkhead, 90V RP-TNC Plug to TNC Jack Bulkhead, 90V UHF Female to TNC Female Bulkhead, 90V UHF Female to UHF Female Bulkhead, 90V	\$18.99 \$24.99 \$18.99 \$14.99 \$23.99 \$14.99 \$23.99 \$23.99 \$14.99
	AL6-NFNFB-9 AL6-NMNFB-9 AL6-RSPRSJB-9 AL6-RTPRTJB-9 AL6-TMTFB-9	N-Female to N-Female Bulkhead, 90V N-Male to N-Female Bulkhead, 90V RP-SMA Plug to RP-SMA Jack Bulkhead, 90V RP-TNC Plug to RP-TNC Jack Bulkhead, 90V TNC Male to TNC Female Bulkhead, 90V	\$29.99 \$29.99 \$29.99 \$29.99 \$29.99
NEW!	ALQ2-NMNFB	N-Male to N-Female Bulkhead, 1/4 Wave	\$39.99
	HGX-LPMOUNTO1 LPX090G LPX090 LPX230 LPX350 LPX600	ALQ2 Mounting Bracket 0-6 GHz, 90V, Replacement Gas Tube 0-3 GHz, 90V, Replacement Gas Tube 0-3 GHz, 230V, Replacement Gas Tube 0-3 GHz, 350V, Replacement Gas Tube 0-3 GHz, 600V, Replacement Gas Tube	\$4.99 \$9.99 \$4.99 \$4.99 \$4.99

#### Switching Power Supplies, Power Cords, PoE Power Supplies and Lighter Power Adapters

We offer a broad range of switching power supplies which support 110/220 VAC operation. Models in this series include 9 VDC, 12 VDC, 15 VDC and 48 VDC options. Additionally, PoE power supplies are available which provide data and power over a single CAT5 cable to end devices which are compliant with IEEE standard PoE pinout (Pins 4&5 Power +/Pins 7&8 Power -).

- 9V, 12V, 15V, 48 VDC models available
- Use with PoE injectors/taps, wireless radios, RF amplifiers and more

PS1224-21R

20 W and 60 Watt PoE power supplies





9V, 12V, 15V and 48 VDC models available

More power supplies at: www.hyperlinktech.com



FOWER SUPPLIES

PS4820-P0E

		73300
Committee (American)	241111111111111111111111111111111111111	
PS909-21R	9 VDC @ 1A (9W), 2.1mm DC Plug	. \$21.99
PS1212-21R	12 VDC @ 1A (12W), 2.1mm R/Angle DC Plug	\$21.99
PS1224-21R	12 VDC @ 2A (24W), 2.1mm R/Angle DC Plug	\$24.99
PS1240-21R	12 VDC @ 3.33A (40W), 2.1mm R/Angle DC Plug	\$64.99
PS1566	15 VDC @ 4.4A (66W), 2.1mm DC Plug	\$89.99
PS4820-P0E	48 VDC @ 0.83A (20W), Dual RJ45 PoE, Includes Power Cord	\$39.99
PS4870-25R	48 VDC @ 1.5A (70W), 2.5mm R/Angle DC Plug	\$99.99
PS4848-25R	48 VDC @ 1A (48W) 2.5mm R/Angle DC Plug	\$49.99
PS4860-POE	48 VDC @ 1.25A (60W), Dual RJ45 PoE, Requires PSCORD3	\$74.99
PS-LIGHTER-06	Cigarette Plug to 2.1mm R/Angle DC Plug, 3A Fuse, 6ft	\$9.99
PSX-EU1	US Flat or Euro Round to Euro 4.8mm Round A/C Adapter	\$3.99
PSX-EU2	EU 4/4.8mm Round to US NEMA 6-15R Flat A/C Adapter	\$3.99
PSCORD2	2 Conductor Plug, USA/AC Power Cord, 1ft	\$3.99
PSCORD3	3 Conductor Plug, USA/AC Power Cord, 1ft	\$2.99

The HyperLink PS4820-POE is a Power-over-Ethernet (PoE) power supply with integral DC Injector. It provides DC power for one PoE-equipped device by "Injecting" DC power through the CAT5 Ethernet cable. It is compatible with AP's and other equipment supporting the IEEE standard PoE pinout (Pins 4&5 Power +/Pins 7&8 Power -). This unit can also be used with Cisco PoE equipment using the optional PoE conversion cable.

Since the PS4820-PoE is completely self-contained, a separate power supply and injector is not required. The PS4820-PoE features an impact resistant polycarbonate enclosure and includes a 3-prong detachable power cord.







MOUNTING DETAIL- Visit us online at www.hyperlinktech.com for complete details

#### Mounting Brackets for NEMA Enclosures, Antennas, Amplifiers and Surge Protectors

HyperLink offers an extensive line of mounting bracket solutions for its antennas, amplifiers, NEMA enclosures and surge protectors. These brackets are designed for years of use indoors and outdoors. Options include wall mount, window mount, mast mount and more! By utilizing these versatile brackets virtually every installation requirement can be met. Visit us online at www.hyperlinktech.com for complete bracket dimensions and specifications.

\$9.99

\$9.99

\$4.99

\$12.99

\$16.99

\$27.99

\$22.99

\$9.99

\$11.99

\$19.99

\$8.99

\$5.99

\$9.99

\$10.99

\$39.99

\$12.99

\$9.99

\$14.99

\$15.99

\$110.99

\$14.99

\$34.99

\$24.99

\$109.99



HGX-PMT06- 60° Tilt-and-Swivel Mounting Kit



**HGXUMOUNT**— Coated galvanized steel for outdoor mounting

# HGX-AMOUNTO1 HGX-AMOUNTO2 HGX-LPMOUNTO1 HGX-MMOUNTO3 HGX-NMOUNTO3 HGX-NMOUNTO4 HGX-PHATEO1 HGX-PMTO2

HGX-PMT03 HGX-PMT04 HGX-PMT06 HGX-PMT07 HGX-PMT08 HGX-PMT11 HGX-PMT13

HGX-PMT14 HGX-PMT15 HGX-UMOUNT

HGX-UMOUNT01

HGX-UMOUNT01-PK

HGX-UMOUNT02
HGX-UMOUNT03
HGX-UMOUNT04

HGX-UMOUNT-10PK

# Mast Mounting Kit for HyperLink Products w/4.6" x" 2.6" cases (2/3/4 Way Splitters, HA2401/DX-AGC/F-AGC & HA2401 Amps

Mounting bracket for HyperLink Amplifiers, PoE Products and Power Supplies ALQ2-NMNFB Surge Protector Mounting Bracket

Ratchet Style Marine Antenna Mount
Universal Equipment Shelf. Mounts to pre-drilled NEMA plate
Universal Equipment Shelf-Mounts to pre-drilled NEMA Plate

Universal Equipment Shelf-Mounts to pre-drilled NEMA Plate Blank Aluminum Mounting Plate use in the NB141207 NEMA enclosure Indoor Antenna Mounting Kit- Small Metal Tilt& Swivel Indoor Antenna Mounting Kit- Medium Plastic Tilt& Swivel

Large Metal Tilt-and-Swivel Mounting Bracket for wall or mast mounting 60 Degree Tilt-and-Swivel Mounting Kit for mounting to 1-1/4" to 2" Dia. Masts Stationary Mounting Kit for mounting to 1-1/4" to 2" Dia. Masts Suctions Cup Window Mounting kit for select Hyperlink Antennas

Heavy Duty Stationary Mast Mounting Kit for mounting to 1-1/4" to 2" Dia. Masts NB141207 or NB181608 Series Weatherproof Enclosure to 2" (50.8mm) to 4" (101.6mm) Dia. Poles

Mast Mounting Kit for HyperLink outdoor filters 1-1/4" to 2" Dia. Masts Indoor Antenna Mounting Kit- Compact Metal Tilt& Swivel Universal Antenna Mount powder coated galvanized steel "DSS-style" arm for

outdoor wall mounting 21 in. Mounting Arm
Universal Antenna Mount powder coated galvanized steel "DSS-style" arm for
outdoor wall mounting 26.7 in. Mounting Arm

Universal Antenna Mount powder coated galvanized steel "DSS-style" arm for outdoor wall mounting 10 Pack

Ceiling/Wall Universal Antenna Mount Use with HyperLink's 4.5" sq and 8.5" sq. patch antennas
Universal Antenna Fixed Corner Mounting Bracket, Extension Kit and Hardware

Universal Corner Mounting Bracket
Universal Antenna Mount powder coated galvanized steel "DSS-style" arm for
outdoor wall mounting 10 Pack

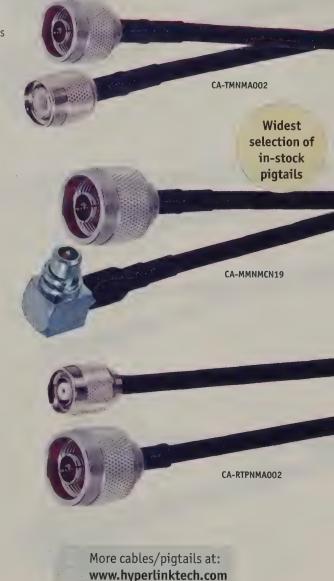


# Manufactured by HyperLink to Assure Absolute Dependability

### **Wireless LAN Pigtails**

HyperLink manufactures and stocks the widest selection of wireless LAN pigtails and adapter cables. In addition to popular styles, HyperLink also offers hard to find connector combinations and can build custom pigtails/adapter cables based upon your specifications. Cable types supported in this series include 1.13 mini-Coaxial, 100-Series and 195-Series assemblies.

	MINERESS TWO NEATY	
	CONTRACTOR OF THE PARTY OF THE	
CA-UFLNBQC20	U.FL to N-Female Bulkhead, 20cm	\$15.99
CA-UFLNMQC20	U.FL to N-Male, 20cm	\$15.99
CA-UFLRSBQC20	U.FL to RP-SMA Jack Bulkhead, 20cm	\$15.99
CA-UFLSBQC20	U.FL to SMA Female Bulkhead, 20cm	\$15.99
CA-UFLQ010	U.FL to Unterminated, 10ft	\$16.99
CA-UFLQC20	U.FL to Unterminated, 20cm	\$12.99
	The property of the second	
CA-RMMRTPCN19	RP-MMCX to RP-TNC Plug, 19in	\$2.99
CA-RMMNMCN19	RP-MMCX to N-Male, 19in	\$9.99
CA-RMMNFBCN19	RP-MMCX Plug to N-Female Bulkhead, 19in	\$18.95
CA-RMMNFCN19	RP-MMCX to N-Female, 19in	\$14.99
CA-SEPRSJCN19	S/E Type 237 Plug to RP-SMA Jack, 19in	\$14.99
CA-SEPSFCN19	S/E Type 237 Plug to SMA Female, 19in	\$14.99
CA-SEPNMCN19	S/E Type 237 Plug to N-Male, 19in	\$14.99
CA-MCRTPCN19	MC Card to RP-TNC Plug, 19in	\$9.99
CA-MCNMC1M5	MC Card to N-Male, 1.5m	\$9.99
CA-MCNMDN19	MC Card to N-Male, 19in	\$6.99
CA-MCNMCN19	MC Card to N-Male, 19in	\$7.99
CA-MCNFCN19	MC Card to N-Female, 19in	\$4.99
CA-MCNFBCN19	MC Card to N-Female Bulkhead, 19in	\$4.99
CA-MMNFCN19	MMCX to N-Female, 19in	\$14.99
CA-MMNFBCN19	MMCX to N-Female Bulkhead, 19in	\$19.99
CA-MMNMCN19	MMCX to N-Male, 19in	\$10.49
CA-MMSNMCN19	MMCX Straight to N-Male, 19in	\$19.99
CA-MPNFCN19	MCX Plug to N-Female, 19in	\$14.99
CA-MPNMCN19	MCX Plug to N-Male, 19in	\$14.99
CA-SNPNFCN19	SMA R/Angle Male to N-Male, 19in	\$14.99
CA-SNPTFBCN19	SMA Nano Plug to TNC Female Bulkhead, 19in	\$14.99
CA-SNPTFCN19	SMA Nano Plug to TNC Female, 19in	\$14.99
CA-SNPNMCN19	SMA Nano Plug to N-Male, 19in	\$14.99
CA-RTPNMB001	RP-TNC to N-Male, 1ft	\$6.00
CA-AMNFBCN19	AlProx to N-Female Bulkhead, 19in	\$9.49
CA-AMNMC1M5	AlProx to N-Male, 1.5m	\$9.99
CA-AMNMC2M5	AlProx to N-Male, 2.5m	\$24.95
CA-AMNMCN19	AlProx to N-Male, 19in	\$14.99
CA-AMNFCN19	AlProx to N-Female, 19in	\$7,49





### WIRELESS LAN PIGTALLS

	70=	Langie	Price
ĺ	CA AMANEACAC	3/4" NMO Mount to N-Female, 10ft	\$24.99
	CA-AM1NFA010 CA-AM1RSPA003	3/4" NMO Mount to N-remate, 10ft 3/4" NMO Mount to RP SMA Plug, 3ft	\$24.99
	CA-AM1RSPA014	3/4" NMO Mount to RP SMA Plug, 14ft	\$24.99
	CA-AMNMA002	AlProx Male to N-Male, 2ft	\$14.99
	CA-FMNMA002	F-Male to N-Male, 2ft	\$14.99
	CA-NMNFA002	N-Male to N-Female, 2ft	\$9.99
	CA-NMNFA004	N-Male to N-Female,4ft	\$12.99
	CA-NMNFA010	N-Male to N-Female, 10ft N-Male to N-Female, 20ft	\$14.99 \$17.99
	CA-NMNFA020 CA-NMNMA002	N-Male to N-Male, 2ft	\$14.99
	CA-NMNMA004	N-Male to N-Male, 4ft	\$22.00
	CA-NMNMA010	N-Male to N-Male, 10ft	\$25.00
	CA-NMNMA020	N-Male to N-Male, 20ft	\$27.00
	CA-NMRRSPA002	N-Male R/Angle to RP-SMA Plug, 2ft	\$14.99
	CA-QPNMA002	QMA Plug to N-Male, 2ft	\$19.99
	CA-RBPNFA002	RP-BNC Plug to N-Female, 2ft	\$14.99 \$18.95
	CA-RBPNFBA002 CA-RBPNMA002	RP-BNC Plug to N-Female Bulkhead, 2ft RP-BNC Plug to N-Male, 2ft	\$14.99
	CA-RSJRTPB010	RP-SMA Jack to RP-TNC Plug, 10ft	\$19.99
	CA-RSJRTPB020	RP-SMA Jack to RP-TNC Plug, 20ft	\$24.99
	CA-RSPNFA002	RP-SMA Plug to N-Female, 2ft	\$14.99
	CA-RSPNFBA002	RP-SMA Plug to N-Female Bulkhead, 2ft	\$18.95
	CA-RSPNMA002	RP-SMA Plug to N-Male, 2ft	\$14.99
	CA-RSPNMA004	RP-SMA Plug to N-Male, 4ft	\$22.00
	CA-RSPNMA010	RP-SMA Plug to N-Male, 10ft	\$25.00
	CA-RSPNMA020 CA-RSPNMB001	RP-SMA Plug to N-Male, 20ft RP-SMA to N-Male, 1ft	\$6.00
	CA-RSPRNMA002	RP-SMA R/Angle Plug to N-Male, 2ft	\$14.99
	CA-RSPRNMA004	RP-SMA R/Angle Plug to N-Male, 4ft	\$22.00
	CA-RSPRNMA010	RP-SMA R/Angle Plug to N-Male, 10ft	\$25.00
	CA-RSPRNMA020	RP-SMA R/Angle Plug to N-Male, 20ft	\$27.00
	CA-RSPRNMRA002	RP-SMA Right Angle Plug to N-Male, 4ft	\$14.99
	CA-RSPRNPA002	RP-SMA Plug to RP-N-Plug, 2ft	\$29.99
	CA-RSPRSJA010 CA-RSPRSJA020	RP-SMA Plug to RP-SMA Jack, 10ft RP-SMA Plug to RP-SMA Jack, 20ft	\$25.00
	CA-RSPRTPA002	RP-SMA Plug to RP-TNC Plug, 2ft	\$19.95
	CA-RTPNFA002	RP-TNC Plug to N-Female, 2ft	\$9.99
	CA-RTPNFA004	RP-TNC Plug to N-Female, 4ft	\$9.99
	CA-RTPNFA010	RP-TNC Plug to N-Female, 10ft	\$12.99
	CA-RTPNFBA002	RP-TNC Plug to N-Female Bulkhead, 2ft	\$18.95
	CA-RTPNFBA004	RP-TNC Plug to N-Female Bulkhead, 4ft	\$18.95
	CA-RTPNMA002 CA-RTPNMA004	RP-TNC Plug to N-Male, 2ft RP-TNC Plug to N-Male, 4ft	\$14.99
4	CA-RTPNMA010	RP-TNC Plug to N-Male, 10ft	\$12.99
	CA-RTPNMA020	RP-TNC Plug to N-Male, 20ft	\$17.99
	CA-RTPRNMA002	RP-TNC R/Angle Plug to N-Male, 2ft	\$14.99
	CA-RTPRNMA004	RP-TNC R/Angle Plug to N-Male, 4ft	\$22.00
	CA-RTPRNMA010	RP-TNC R/Angle Plug to N-Male, 10ft	\$25.00
	CA-RTPRNMA020 CA-RTPRNMRA002	RP-TNC R/Angle Plug to N-Male, 20ft RP-TNC R/Angle Plug to N-Male, 2ft	\$27.00
1	CA-RTPRTJA002	RP-TNC Plug to RP-TNC Jack, 2ft	\$12.99
	CA-RTPRTJA004	RP-TNC Plug to RP-TNC Jack, 4ft	\$22.00
	CA-RTPRTJA010	RP-TNC Plug to RP-TNC Jack, 10ft	\$25.00
l	CA-RTPRTJA020	RP-TNC Plug to RP-TNC Jack, 20ft	\$27.00
	CA-RTPRTJBA002	RP-TNC Plug to RP-TNC Jack Bulkhead, 2ft	\$18.95
	CA-RTPRTPA002	RP-TNC Plug to RP-TNC Plug, 2ft	\$18.95
	CA-SMNFA002 CA-SMNFA004	SMA Male to N-Female, 2ft SMA Male to N-Female, 4ft	\$14.95 \$18.95
ì	CA-SMNFBA002	SMA Male to N-Female Bulkhead, 2ft	\$18.95
ı	CA-SMNMA002	SMA Male to N-Male, 2ft	\$14.99
	CA-SMNMA004	SMA Male to N-Male, 4ft	\$16.99
-	CA-SMNMA010	SMA Male to N-Male, 10ft	\$19.99
	CA-SMRNFA002	SMA R/Angle Male to N-Female, 2ft	\$14.95
,	CA-SMRNFBA002	SMA R/Angle Male to N-Female Bulkhead, 2ft	\$18.95
	CA-SMRNMA002 CA-SSMNFAN06	SMA R/Angle Male to N-Male, 2ft Shrouded SMA to N-Female, 6in	\$14.99 \$10.49
	CA-SSMNMA002	Shrouded SMA to N-Male, 2ft	\$10.49
	CA-SSMNMAN06	Shrouded SMA to N-Male, 6in	\$10.49
	CA-TMNFA002	TNC Male to N-Female, 2ft	\$14.99
1	CA-TMNMA002	TNC Male to N-Male, 2ft	\$14.99
- marie	CA-WMNFA002	WaveRider to N-Female, 2ft	\$15.99
	CA-WMNMA002 CA-WMNMA005	WaveRider to N-Male, 2ft WaveRider to N-Male, 5ft	\$15.99 \$16.99
ı	CA-WINIMINO	mavertuel to H-Plate, Sit	\$10.55

## The Right Connection—Guaranteed

#### **Antenna Cable Assemblies**

HyperLink manufactures high quality fully tested antenna feed cable assemblies featuring high performance, low loss coaxial cable from manufacturers such as CommScope®, Times Microwave® and HyperLink. These robust cables have excellent low loss characteristics and all HyperGain® antenna cable assemblies are RoHS compliant. HyperLink can manufacture custom cable assemblies to your specifications, including cable type, length and connectors. To order, visit www.hyperlinktech.com today!

More antenna cables at: www.hyperlinktech.com

#### ANTENNA CABLE ASSEMBLIES

Ilire-	Tree option	
The same of	THE SEPSEE WHAT TO THE	
CA-RSPNME002	RP-SMA Plug to N-Male, 2ft	\$25.00
CA-NMNFE010	N-Male to N-Female, 10ft	\$29.00
CA-NMNME010	N-Male to N-Male, 10ft	\$29.00
CA-RSPNME010	RP-SMA Plug to N-Male, 10ft	\$29.00
CA-NMNME002	N-Male to N-Male, 2ft	\$25.00
CA-NMNFE020	N-Male to N-Female, 20ft	\$34.00
CA-RSPNME020	RP-SMA Plug to N-Male, 20ft	\$34.00
CA-NMNME020	N-Male to N-Male, 20ft	\$34.00
CA-RSPNME004	RP-SMA Plug to N-Male, 4ft	\$26.00
CA-NMNME004	N-Male to N-Male, 4ft	\$26.00
CA-NMNME050	N-Male to N-Male, 50ft	\$48.00
CA-NMNMT010	N-Male to N-Male, 10ft	\$29.00
CA-SMNMT010	SMA Male to N-Male, 10ft	\$29.00
CA-NMNMT002	N-Male to N-Male, 2ft	\$25.00
CA-RTPNFT002	RP-TNC Plug to N-Female, 2ft	\$25.00
CA-SMNMT002	SMA Male to N-Male, 2ft	\$25.00
CA-NMNMT004	N-Male to N-Male, 4ft	\$26.00
CA-NMNFT004	N-Male to N-Female, 4ft	\$26.00
CA-RTPNFT004	RP-TNC Plug to N-Female, 4ft	\$26.00
CA-SMNMT004	SMA Male to N-Male, 4ft	\$26.00
CA-RTPNFT010	RP-TNC Plug to N-Female, 4ft	\$29.00
CA3N010	N-Male to N-Male 10ft	\$27.00
CA4NMRSF010	RP-SMA Plug to N-Male 10ft	\$24.99 \$27.99
CA4NMRTF010	RP-TNC Plug to N-Male 10ft	\$27.99
CA4RNPNM010	RP N Plug to N-Male 10ft	\$22.95
CA4RTMRTF010	RP-TNC Jack to RP-TNC Plug 10ft	\$27.99
CA4RTPRTP010	RP-TNC Plug to RP-TNC Plug 10ft	\$22.95
CA4NMSM010	SMA Male to N-Male 10ft	\$29.99
CA3N100	N-Male to N-Male 100ft	\$119.99
CA4N100	N-Male to N-Female 100ft	\$119.99
CA4NMRSF100	RP-SMA Plug to N-Male 100ft	\$119.99
CA4NMRTF100	RP-TNC Plug to N-Male 100ft	\$119.99
CA4N010	N-Male to N-Female 10ft	\$27.99
CA3N002	N-Male to N-Male 2ft	\$19.99
CA4NMRRSP002	N-Male Right Angle to RP-SMA Plug 2ft	\$21.99
CA4NMRRTP002	N-Male Right Angle to RP-TNC Plug 2ft	\$21.99
CA4NMRSF002	RP-SMA Plug to N-Male 2ft	\$21.99
CA4NMRTF002	RP-TNC Plug to N-Male 2ft	\$21.99
CA4NMSM002	SMA Male to N-Male 2ft	\$24.99
CA4RNPNM002	RP N Plug to N-Male 2ft	\$21.99
CA4RTMRTF002	RP-TNC Jack to RP-TNC Plug 2ft	\$21.99
CA4RTPRTP002	RP-TNC Plug to RP-TNC Plug 2ft	\$21.99



CA4N002	N-Male to N-Female 2ft	\$22.99
CA3N020	N-Male to N-Male 20ft	\$29.99
CA4N020	N-Male to N-Female 20ft	\$32.99
CA4NMRSF020	RP-SMA Plug to N-Male 20ft	\$34.99
CA4NMRTF020	RP-TNC Plug to N-Male 20ft	\$39.99
CA4RTMRTF020	RP-TNC Jack to RP-TNC Plug 20ft	\$44.99
CA3N025	N-Male to N-Male 25ft	\$34.99
CA4N025	N-Male to N-Female 25ft	\$39.99
CA4NMRSF025	RP-SMA Plug to N-Male 25ft	\$39.99
CA4NMRTF025	RP-TNC Plug to N-Male 25ft	\$39.99
CA4NMSM025	SMA Male to N-Male 25ft	\$49.99
CA4RTMRTF025	RP-TNC Jack to RP-TNC Plug 25ft	\$49.99
CA3N030	N-Male to N-Male 30ft	\$54.99
CA4NMRSF030	RP-SMA Plug to N-Male 30ft	\$44.99
CA3N040	N-Male to N-Male 40ft	\$64.99
CA3N050	N-Male to N-Male 50ft	\$47.99
CA4N050	N-Male to N-Female 50ft	\$49.99
CA4NMRSF050	RP-SMA Plug to N-Male 50ft	\$49.99
CA4NMRTF050	RP-TNC Plug to N-Male 50ft	\$49.99
CA4RTMRTF050	RP-TNC Jack to RP-TNC Plug 50ft	\$69.99
CA4RTPRTP050	RP-TNC Plug to RP-TNC Plug 50ft	\$44.95
CA3N075	N-Male to N-Male 75ft	\$87.99
CA4N075	N-Male to N-Female 75ft	\$87.99
CA4NMRSF075	RP-SMA Plug to N-Male 75ft	\$87.99
CA4NMRTF075	RP-TNC Plug to N-Male 75ft	\$84.99
CA4RNPRNP075	RP N Plug to RP N Plug 75ft	\$89.99
CA-6NMNM010	N-Male to N-Male, 10ft	\$52.00
CA-6NMNM025	N-Male to N-Male, 25ft	\$70.00
CA-6NMNM050	N-Male to N-Male, 50ft	\$100.00
CA-6NMNM075	N-Male to N-Male, 75ft	\$130.00
CA-6NMNM100	N-Male to N-Male, 100ft	\$160.00
		4100.00
CC-9NMNM025	N-Male to N-Male, 25ft	\$556.00
CC-9NMNM050	N-Male to N-Male, 50ft	\$798.00
CC-9NMNM075	N-Male to N-Male, 75ft	\$1220.00
CC-9NMNM100	N-Male to N-Male, 100ft	\$1550.00
CC-9NMNF025	N-Male to N-Female, 25ft	\$556.00
CC-9NMNF050	N-Male to N-Female, 50ft	\$798.00
CC-9NMNF075	N-Male to N-Female, 75ft	\$1220.00
CC-9NMNF100	N-Male to N-Female, 100ft	\$1550.00

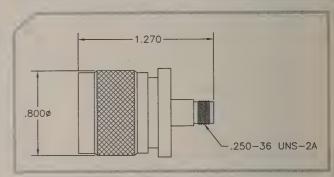


# Precision Adapters for Every Application

#### **Adapters**

HyperLink stocks hundreds of the most popular types of coaxial adapters for today's wireless applications. A multitude of adapter configurations are available off the shelf and are ready for same day shipping. Popular styles include N-Male, N-Female, RP-TNC, RP-SMA as well as SMA male and female combinations. These adapters are great for connecting unlike cable connector types when installing RF radios, amplifiers, splitters and filters. Go online today to see our complete range of adapter choices.

- Connect unlike cable ends
- · Quality construction ensures long life
- RoHS compliant
- · Widest selection



**AXA-NMSF Technical Specifications—** For detailed engineering drawings please see our website www.hyperlinktech.com

	MEAPTERS	
AXA-RTPRTP	RP TNC-Plug to RP TNC-Plug Barrel Adapter	\$3.49
AXA-AMNFB	N-Female Bulkhead to NMO Adapter	\$12.99
AXA-NFBF	N-Female to BNC-Female Adapter	\$2.99
AXA-NFBM	N-Female to BNC-Male Adapter	\$3.49
AXA-NFMUM	N-Female to Mini-UHF Male Adapter	\$0.99
AXA-NFNF	N-Female to N-Female Bullet Adapter	\$3.99
AXA-NFNFB	N-Female to N-Female 1/8" Adapter	\$3.49
AXA-NFNFB2	N-Female to N-Female 1/4" Adapter	\$3.49
AXA-NFRBP	N-Female to RP BNC Plug Adapter	\$3.49
AXA-NFRSJ	N-Female to RP-SMA Jack Adapter	\$4.99
AXA-NFRSP	N-Female to RP-SMA Plug Adapter	\$3.99
AXA-NFRTP	N-Female to RP-TNC Plug Adapter	\$4.99
AXA-NFRTP2	N-Female to RP-TNC Plug Adapter- 1 Piece Design	\$4.99
AXA-NFSF	N-Female to SMA Female Adapter	\$4.99
AXA-NFTM	N-Female to TNC Male Adapter	\$3.49
AXA-NMBF	N-Male to BNC Female Adapter	\$3.49

		Price
AXA-NMFF	N-Male to F-Female Adapter	\$3.49
AXA-NMNF90	N-Male to N-Female R/Angle Adapter	\$5.99
AXA-NMNM	N-Male to N-Male Barrel Adapter	\$3.99
AXA-NMNM90	N-Male to N-Male R/Angle Adapter	\$5.99
AXA-NMRSJ	N-Male to RP-SMA Jack Adapter	\$4.99
AXA-NMRSP	N-Male to RP-SMA Plug Adapter	\$4.99
AXA-NMRTJ .	N-Male to RP-TNC Jack Adapter	\$4.99
AXA-NMRTP	N-Male to RP-TNC Plug Adapter	\$4.99
AXA-NMSF	N-Male to SMA Female Adapter	\$3.99
AXA-NMSM	N-Male to SMA Male Adapter	\$3.99
AXA-NMTF	N-Male to TNC Female Adapter	\$3.99
AXA-RSJRSJB	RP-SMA Jack to RP-SMA Jack Bulkhead Bullet Adapter	\$3.99
AXA-RSPRSP	RP-SMA Plug to RP-SMA Plug Barrel Adapter	\$3.99
AXA-RTJRSP	RP-TNC Jack to RP-SMA Plug Adapter	\$3.99
AXA-RTJRTJ	RP-TNC Jack to RP-TNC Jack Bullet Adapter	\$3.99
AXA-RTPRSJ	RP-TNC Plug to RP-SMA Jack Adapter	\$3.99
AXA-SFSFB	SMA Female to SMA Female Bulkhead Bullet Adapter	\$3.99
AXA-SMSM	SMA Male to SMA Male Barrel Adapter	\$3.49

# In Wireless, Every Connection Counts

#### **Connectors**

HyperLink's coaxial connector offering includes Type-N, TNC, SMA, BNC, MCX, Mini-UHF, MC Card, F-Type and more. In addition to the most popular styles we also provide harder to find connectors for all your application needs. Configurations include crimp style, clamp style, bulkhead style and panel mount connectors. Each connector is precision manufactured using only the highest quality materials. Detailed engineering drawings are available online at www.hyperlinktech.com.

- Durable construction
- RoHS compliant
- Widest selection
- Easy to terminate



ASM-1710 - 19 Series SMA Male Right Angle Crimp



ARTP-1200 - 200 Series RP-TNC Plug Crimp

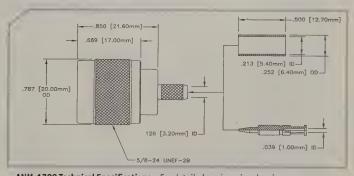


#### Tech Talk:

Proper termination of coaxial connectors is imperative to attain peak performance. By selecting the proper connector and termination tool for your chosen cable type, optimal performance can be realized. Whether using a clamp or crimp style coaxial connector make sure to prep your cable per the manufacturer recommendations as far as strip length, etc. It is also important to use the right sized crimp die. For a complete listing of crimp tools and other termination accessories see Page 39. Learn more at hyperlinktech.com.







**ANM-1700 Technical Specifications** – For detailed engineering drawings please see our website www.hyperlinktech.com

## Most Popular HyperLink Connectors

More connectors at: www.hyperlinktech.com

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1110		
	THE RESERVE THE PARTY OF THE PA	
ARNJ-1404	RP-N Jack Crimp	\$0.99
ANF-2400	N-Female Clamp	\$3.49
ANF-1406	N-Female Crimp	. \$3.29
ANM-2400	N-Male Clamp	\$3.49
ANM-1406	N-Male Crimp	\$3.29
ANM-1406-25B	BP'N-Male Crimp 25 Pack	\$3.29
ANM-1416	N-Male Right Angle Crimp	\$3.99
ARBP-1402	RP-BNC Plug Crimp	\$0.99
ARNP-1404	RP-N Plug Crimp	\$3.99
ARSJ-1404	RP-SMA Jack Crimp	\$3.99
ARSP-1404	RP-SMA Plug Crimp	\$4.99
ARTJ-3400	RP-TNC Jack Bulkhead Crimp	\$0.99
ARTJ-1404	RP-TNC Jack Crimp	\$3.29
ARTP-1404	RP-TNC Plug Crimp	\$3.99
ASM-1406	SMA Male Crimp	\$1.29
ATF-1402	TNC Female Crimp	\$3.29
ATM-1402	TNC Male Crimp	\$3.49
ATML-1400	TNC Male Reverse Thread Crimp	\$0.99
AUM-1402	UHF Male Crimp	\$2.79
ANF-2602	N. C. L. C.	
ANF-2002 ANF-1610	N-Female Clamp	\$1.29
ANK-1610 ANM-2602	N-Female Crimp	\$5.99
ANM-2602 ANM-1610	N-Male Clamp N-Male Crimp	\$4.99
ANM-1616	N-Male Crimp	\$5.99
ARTJ-1606	RP-TNC Jack Crimp	\$5.99
ARTP-1606	RP-TNC Plug Crimp	\$0.99
ATM-1608		\$4.99
AIM-1008	TNC Male Crimp	\$0.99
ANM-2904	N-Male Clamp	\$49.99
ANF-2904	N-Female Clamp	\$49.99
ANM-TERM1	N-Male 50 Ohm Terminator 0-60 GHz	\$7.99
ANF-4000	N-Female Panel Mount 4-Hole, 1 in. Flange Solder Connector	\$3.49
ANF-1A18	RG6 N-Female Crimp	\$1.29
ANM-1A18	RG6 N-Male Crimp	\$3.29
ARTP-1A10	RG6 RP-TNC Plug	\$2.99
ARSJ-4000	RP-SMA Jack Panel Mount 4-Hole 1" Flange	\$0.99
ACD DC44		
ASR-PG11	PG11 Strain Relief Cable Gland	\$3.99
ASR-PG13	PG13.5 Strain Relief Cable Gland	\$3.99
ASR-PG16	PG16 Strain Relief Cable Gland	\$3.99

# Ask Us About 10 and 25 Pack Pricing

#### COMMITTEE

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AAPM-1100	AlProx Male Right Angle Crimp	\$3.80
AMCM-1102	MC Card Male Crimp	1
		\$2.99
AMM-1102	MCX Male Straight Crimp	\$2.99
AMMM-1100	MMCX Male Crimp	\$2.99
AMMM-1104	MMCX Male Right Angle Crimp	\$2.99
AMMM-1106	MMCX Male Straight Crimp	\$2.99
ARMMP-1100	RP-MMCX Plug Right Angle Crimp	1
		\$3.29
ARSP-1100	RP-SMA Plug Crimp	\$3.29
ASM-1102	SMA Male Crimp	\$3.29
ASNP-1100	SMA Nano-Plug Crimp	\$3.99
ASEP-1100	S/E Plug, Ericcson Type 23,7 Crimp	\$0.99
7050 1100	3/Ertag, Ertecson Type 23,7 ertilip	\$0.55
AADM 4700	ALD ALL D'LL ALL C'	
AAPM-1700	AlProx Male Right Angle Crimp	\$3.29
ABM-1700	BNC Male Crimp	\$1.99
AFM-1700	F-Male Crimp	\$2.99
ANF-3700	N-Female Bulkhead Crimp	\$3.99
ANF-1700		
	N-Female Crimp	\$3.29
ANF-1700-25BP	N-Female Crimp 25 Pack	\$3.29
ANF-5700	N-Female Panel Mount Crimp	\$3.49
ANM-1700	N-Male Crimp	\$3.29
ANM-1700-25BP	N-Male Crimp 25 Pack	
		\$3.29
ANM-1716	N-Male Right Angle Crimp	\$3.99
AAM1-1700	NMO 3/4" Hole Crimp	\$3.49
AQP-1700	QMA Plug Right Angle Crimp	\$5.99
ARBJ-1700	RP-BNC Jack Crimp	
		\$0.99
ARBP-1700	RP-BNC Plug Crimp	\$3.29
ARNJ-1700	RP-N Jack Crimp	\$3.99
ARNP-1700	RP-N Plug Crimp	\$3.99
ARSJ-3700	RP-SMA Jack Bulkhead Crimp	\$3.99
ARSJ-1700	RP-SMA Jack Crimp	\$3.99
ARSP-1700	RP-SMA Plug Crimp	\$3.99
ARSP-1702	RP-SMA Plug Right Angle Crimp	\$3.99
ARTJ-3702	RP-TNC Jack Bulkhead Crimp	\$2.99
ARTJ-1708		
	RP-TNC Jack Crimp	\$2.99
ARTP-1708	RP-TNC Plug Crimp	\$2.99
ARTP-1708-25BP	RP-TNC Plug Crimp 25 Pack	\$2.99
ARTP-1714	RP-TNC Plug Right Angle Crimp	\$3.99
ASM-1714	Shrouded SMA Male Right Angle Crimp	\$3.29
ASF-3700	SMA Female Bulkhead Crimp	\$3.29
ASF-1708	SMA Female Crimp	\$3.29
ASM-1710	SMA Male Right Angle Crimp	\$3.29
ASM-1708	SMA Male Straight Crimp	\$3.29
ATF-3700	TNC Female Bulkhead Crimp	
		\$3.29
ATF-1700	TNC Female Crimp	\$1.49
ATM-1700	TNC Male Crimp	\$2.99
AUM-1700	UHF Male Crimp	\$2.79
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ANF-1202	N-Female Crimp	\$2.20
		\$3.29
ANM-1202	N-Male Crimp	\$3.29
ARNP-1202	RP-N Plug Crimp	\$3.99
ARSP-1202	RP-SMA Plug Crimp	\$3.29
ARTP-1200	RP-TNC Plug Crimp	\$2.99
ATM-1204	TNC Male Crimp	
ATPI-1204	inc mate crimp	\$2.99
ANE 4500	11.5	
ANF-1508	N-Female Crimp	\$3.29
ANM-1508	N-Male Crimp	\$3.29
ANM-1516	N-Male Right Angle Crimp	\$5.99
ARSP-1504	RP-SMA Plug Crimp	
		\$3.99
ARTP-1502	RP-TNC Plug Crimp	\$3.99
ASM-1504	SMA Male Crimp	\$2.99
ATF-1506	TNC Female Crimp	\$0.99
ATM-1506	TNC Male Crimp	\$3.49
1111 1300	The mate crimp	\$3.49
AND ADD	THE RESERVE TO SERVE THE PARTY OF THE PARTY	
ANF-1304	N-Female Crimp	\$0.99
ANM-1304	N-Male Crimp	\$0.99
ARTP-1312	RP-TNC Plug Crimp	\$0.99
		40.55

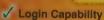
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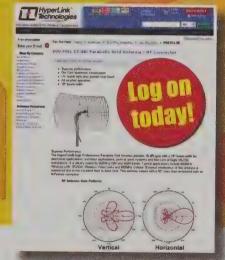
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#### **Tools and Accessories**

HyperLink's tools and accessories offering includes all the things needed to complete an installation such as weatherproof tape, cable ties, grounding kits, crimp frames and dies, crimp kits and more. These useful and necessary items are a must for any installation or maintenance person.



HT-KIT-01 DETAIL

# Tools and Accessories



#### TOOLS AND ACCESSORIES



HT-STRIP400

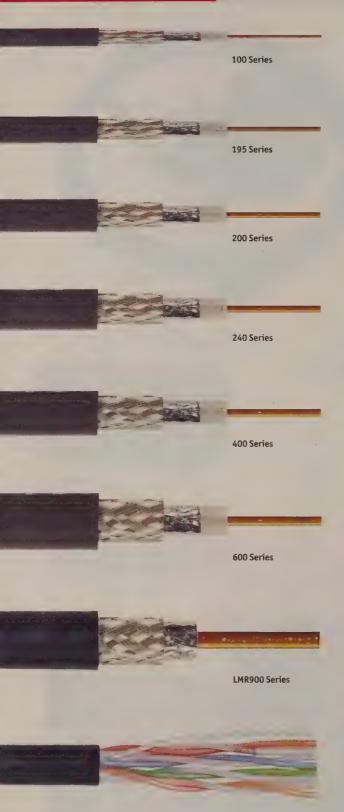
More accessories at: www.hyperlinktech.com

"In partnership with HyperLink Technologies, we have enhanced our product offerings for wireless/WAN communications, which was high on our customers' lists. HyperLink's extremely qualified and friendly sales team ensures that we are always provided with excellent service and product offerings, which makes them leaders in today's highly competitive market. I look forward to an excellent partnership in the years come."

- Riaz Khimany, X-Link Systems Inc



# Bulk Cable



CAT5/5e Series

#### The Reel Deal

Available by the foot or by the reel

#### **Bulk Cable**

HyperLink's wide range of bulk coaxial cable includes products from CommScope®, Times Microwave® and HyperLink. This series begins with 100-Series bulk offering all the way to very low loss, high performance 900-Series cable. This bulk coaxial cable is great for making radio pigtails or longer length antenna cables.

In addition to bulk coaxial cable, HyperLink also offers bulk CAT5 and CAT5e enhanced network cable for all of your voice, video and data needs.

CA100-F00T	CommScope Bulk Cable- By the Foot	\$0.59
CA100-REEL	CommScope Bulk Cable- 1,000' Reel	\$279.99
CA100W-F00T	CommScope White Bulk Cable- By the Foot	\$0.59
CA100W-REEL	CommScope White Bulk Cable- 1,000' Reel	\$279.99
CA195R-F00T	CommScope Bulk Cable- By the Foot	\$0.37
CA195RW-F00T	HyperLink White Bulk Cable- By the Foot	\$0.59
CA195RW-REEL	HyperLink White Bulk Cable- 1,000' Reel	\$349.99
CA-195P-R500	HyperLink Plenum Rated Bulk Cable- 500' Reel	\$249.99
CA-195R-R1K	HyperLink Bulk Cable- 1,000' Reel	\$199.99
CA-200-R1K	HyperLink Bulk Cable- 1,000' Reel	\$269.99
CA-200-F00T	HyperLink Bulk Cable- By the Foot	\$0.49
CA-240-R500	HyperLink Bulk Cable- 500' Reel	\$199.99
CA-240-F00T	HyperLink Bulk Cable- By the Foot	\$0.55
CA-400-F00T	HyperLink Bulk Cable- By the Foot	\$0.59
CA400P-F00T	CommScope Bulk Cable- By the Foot	\$3.49
CA400P-REEL	CommScope Plenum Rated Bulk Cable- 1,000' Reel	\$1999.99
CA-400-R1K	HyperLink Bulk Cable- 1,000' Reel	\$369.99
CA400-REEL	CommScope Bulk Cable- 1,000' Reel	\$519.99
CA-400-R500	HyperLink Bulk Cable- 500' Reel	\$189.99
CA600-REEL	CommScope Bulk Cable- 1,000' Reel	\$1299.00
CA-600-R500	HyperLink Bulk Cable- 500' Reel	\$499.99
CA-600-F00T	HyperLink Bulk Cable- By the Foot	\$1.35
CA-600-R1K	HyperLink Bulk Cable- 1,000' Reel	\$899.99
CA900DB-F00T	Times Microwave Bulk Cable- By the Foot	\$5.90
CA900DB-REEL	Times Microwave Bulk Cable- 1,000' Reel	\$4599.99
CA5NF4-F00T	CommScope Bulk Cable- By the Foot	\$0.79
CA5NF4-REEL	CommScope Bulk Cable- 1,000' Reel	\$349.99
CA-5EF4-R1K	HyperLink Bulk Cable- 1,000' Reel	\$199.99
CA-5EF4-F00T	HyperLink Bulk Cable- By the Foot	\$0.55

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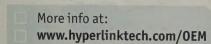
# HyperLink Original Equipment Manufacturer (OEM) Products

HyperLink Original Equipment Manufacturers (OEM) solutions are designed to make your existing product lines more adaptive, intuitive, innovative and creative. Designed and manufactured in the USA, these products are now available on a worldwide basis to OEMs designing solutions for the wireless communication industry. By incorporating our OEM products into your existing product lines, complete wireless solutions can be offered to your customers.

HyperLink OEM products are designed with the highest of quality, reliability, advanced functionality, ease of installation, and lowest cost. These products can be purchased in standard configurations or custom configured to your specifications. HyperLink can also custom engineer from the ground up proprietary OEM products based on your specifications.

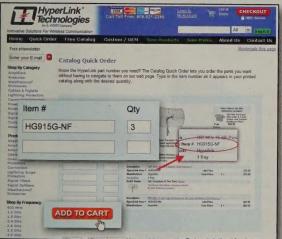
For additional information on our OEM products as well as price quotes, please contact our Sales Department.





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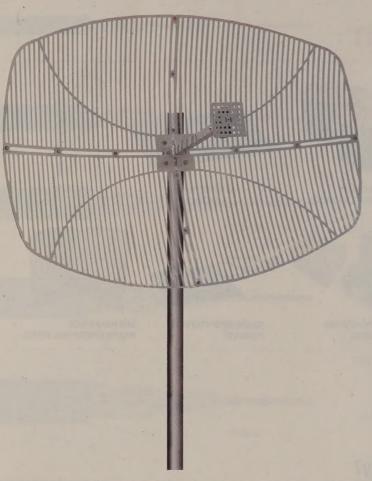
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## New Products



The HyperGain® HG2427G high-performance 2.4 GHz reflector grid antenna provides 26.5 dBi gain for long-range highly directional applications. This antenna features a die cast aluminum reflector grid for superior strength and light weight. The antenna's 4-piece reflector grid is simple to assemble and significantly reduces shipping costs.

#### HG2427G See Page 4

"I am very pleased with the HyperLink website. Checking out is very easy and when I log back in I can see my past orders. Everything is easily accessible. Also, I love that I am able to see tracking numbers once the orders are shipped! Thanks again!"

— Melissa O'Beirne BRG Precision Products



NB141207-2XX See Page 18

HyperLink's NEMA rated 240 VAC weatherproof enclosures include a mounting plate, and are available with a thermostat controlled cooling fan, and/or heater.



HA2401GM-1000 HA2401SFGE-1000 BT-CAT5-M1 See Page 22

HyperLink introduces twelve new "OEM" Wi-Fi amplifiers to is current RF amplifier line. These new models are ideal for OEM type applications.



AL-CAT5HPJW AL-CAT6PW

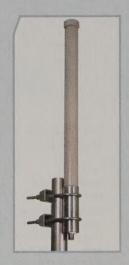
AL-DSLSW See Page 29

HyperLink introduces seven new additions to its lightning surge protector line. Models include CAT5, CAT6, DSL, Telephone and T1 protectors.



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· Free customer service and technical support



HG2408U-PRO See Page 5



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HyperLink

**Tool Kit** 

**AL-CAT5HPJW** See Page 29



See Page 6



# **Bonus Gift Offer**

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